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ROYAL BOTANIC GARDENS,
PERADENIYA.

EDITED BY

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Additions to Ceylon Fungi (II.).

BY

T. PETCH, B.A., B.Sc.

HYMENOMYCETÆ.

Agaricaceæ.

***Clitocybe sordida* n. sp.**

Pileus up to 4.5 cm. diameter, infundibuliform, or in small examples almost plane and depressed in the centre, margin at first incurved, gray-brown or gray, densely covered with minute black particles, or black-brown in the centre and radially streaked with black-brown, margin at first white. Stalk up to 4 cm. high, 4 mm. diameter, equal or slightly inflated at the base, stuffed, livid brownish-gray with dark brown fibrils and points. Gills white, or faintly cream, crowded, narrow, decurrent, terminating on the stem at a definite line, which is dark brown in old specimens. Spores white, oval, $5 \times 3 \mu$. Strong smell of meal.

On the ground, sometimes connate at the base, Hakgala, December, 1917; No. 5592 in Herb. Peradeniya.

***Mycena longiseta* v. H.**

On bark of a jak tree, Peradeniya, December, 1914; No. 4378 in Herb. Peradeniya, &c.

The hairs on the pileus in the Ceylon specimens are at first hyaline, then yellow-brown.

***Omphalia straminea* n. sp.**

Pileus up to 5 mm. diameter, broadly convex, or truncated conoid, 2 mm. high, umbilicate, straw-coloured, appearing striate when moist, minutely squamulose. Stalk up to 2 cm. high, 0.75 mm. diameter, expanded towards the apex, pale straw-coloured to whitish, smooth, stuffed. Gills distant, broad, arched, decurrent, white. Spores white, oblong-oval, $6-8 \times 3 \mu$. Cystidia scanty, fusiform to flask-shaped, $25-30 \times 6 \mu$.

Annals of the Royal Botanic Gardens, Peradeniya, Vol. VII., Part IV., June, 1922.

Among moss, Nuwara Eliya, December, 1917 ; No. 5601 in Herb. Peradeniya. Resembles *Omphalia fibula*, but does not become plane.

***Hygrophorus diversicolor* n. sp.**

Gregarious, sometimes connate at the base. Pileus up to 5 cm. diameter, almost plane, umbilicate in the centre, sometimes irregularly infundibuliform, olive-brown to black-brown, the cuticle broken into minute closely adpressed scales and fibrils, usually perforated in the centre ; flesh yellow. Stalk up to 3.5 cm. high, 1 cm. diameter, usually flattened and lacunose, expanding upwards or equal, smooth, hollow, at first greenish-yellow, becoming pale purple-gray or purple-black. Gills greenish-yellow to ochraceous, distant, ventricose, veined, thick, somewhat dry and brittle, decurrent, the tissue between the gills yellow and contrasting strongly with the purple-gray of the stalk. On the ground, Henaratgoda, July, 1917 ; No. 5226 in Herb. Peradeniya.

***Hygrophorus mutabilis* n. sp.**

Pileus up to 3 cm. diameter, conical, orange-red, minutely silky striate, margin irregular. Stalk up to 6 cm. high, 5 mm. diameter, equal or slightly attenuated upwards, longitudinally striate, twisted, slightly fibrillose, orange-yellow, paling towards the base, stuffed. Gills pallid, or yellow with a broad pallid edge, becoming lavender with a white edge, moderately distant, ventricose, free, but close to the stem. Spores white, globose, 6-8 μ diameter. Every part turns black when bruised ; stains paper black. Differs from *H. conicus* in the colour of the gills.

Hakgala, December, 1917 ; No. 5596 in Herb. Peradeniya.

***Hygrophorus similis* n. sp.**

Pileus up to 2 cm. diameter, hemispherical, crimson or orange-red, sometimes streaked, even, not depressed or umbonate. Stalk up to 3 cm. high, 2 mm. diameter, orange-yellow, glabrous, slightly white tomentose at the base, internally yellow, stuffed. Gills arched, decurrent, orange-yellow, becoming flesh-coloured with a paler edge. Spores white, oblong-oval, 6 $\times$ 4 μ .

On the ground in jungle, Hakgala, January, 1918; No. 5580. The colour of the pileus resembles that of *H. roseostriatus*, but that of the gills is different. It does not blacken when bruised.

***Russula fusco-grisea* n. sp.**

Pileus up to 8 cm. diameter, almost plane, centre depressed, blackish-gray or blackish-brown in the centre, elsewhere gray or brownish-gray, paling towards the margin, with a viscid separable pellicle; margin strongly tuberculato-striate. Flesh white, spongy. Stalk white, equal, expanding slightly at the apex, dry, slightly shining, solid, up to 4 cm. high, 1.3 cm. diameter. Gills white, becoming faintly cream, discoloured where bruised, fragile, distant, adnate or sinuato-adnate, sometimes forking near the stem, lower edge straight or slightly arcuate. Spores white, oval or globose, echinulate, with a rather long apiculus, $6-8 \times 5 \mu$.

On the ground, Hakgala, August, 1918; No. 5788 in Herb. Peradeniya.

***Cantharellus decurrens* n. sp.**

Pale ochraceous, orbicular, about 6 mm. diameter, plane or repand, minutely rugose; lower surface slightly darker than the upper. Stalk lateral, but with the pileus descending on either side, short, attenuated below, minutely pruinose. Gills few, simple or forked, narrow, edge obtuse.

On dead twigs, Henaratgoda, September, 1917; No. 5347 in Herb. Peradeniya.

***Phlebophora hyalina* n. sp.**

Pileus hemispherical or campanulate, up to 5 mm. diameter, depressed in the centre, membranous, whitish hyaline, radially silky, margin fimbriate, lower surface even. Stalk hyaline, translucent, tomentose, expanding slightly at the apex, curved, up to 5 mm. high, 0.5-1 mm. diameter. Basidia clavate, $24 \times 5 \mu$, four-spored. Spores oval, inequilateral, apiculate, white, $7 \times 4 \mu$.

On rotten wood, Hakgala, April, 1919; No. 5951 in Herb. Peradeniya.

***Lenzites japonica* Berk.**

Peradeniya, November, 1916; No. 4956 (det. Lloyd).

Claudopus repens n. sp.

Resupinate, sessile, orbicular, up to 4 mm. diameter; margin white, tomentose; hymenial surface pinkish-red; gills few, distant. Spores irregularly globose, nodular, with a stout conical apiculus, $6-8 \times 4-6 \mu$.

On the under side of rotting logs, growing from white cords of mycelium which spread out here and there into cobwebby sheets. Hakgala, December, 1917; No. 5621 in Herb. Peradeniya.

Pluteus flavomarginatus n. sp.

Pileus 2 cm. diameter, convex, sometimes slightly umbonate, orange-red, sometimes with deeper crimson streaks radiating from the centre, margin yellow. Gills white, then pink, broad, somewhat ventricose, free. Stalk 3.5 cm. high, 2 mm. diameter, yellow, glabrous, slightly tomentose at the base. Spores pink, subglobose, $5-6 \times 4-5 \mu$.

On dead wood, Hakgala, March 29, 1907, &c.

Pholiota badia n. sp.

Fasciculate. Pileus 7-20 cm. diameter, undulating, feebly umbonate, bay-brown, rather darker in the centre, or yellow-brown in the centre becoming pallid towards the margin, glabrous, cuticle sometimes radially puckered, sometimes splitting; flesh white, thick (2.5 cm.) over the stalk, rapidly thinning out, with a translucent, thick (5 mm.) brown cuticle, which forms the total context over the outer third of the pileus. Stalk 6-12 cm. long, 5-16 mm. diameter, equal, innately longitudinally fibrillose, the outer layers splitting, solid, pallid becoming brownish, longitudinally ridged above the ring; ring ample, fragile, evanescent. Gills sinuato-decurrent, moderately crowded, pallid, then feebly purple-brown, narrow, attenuated outwards, edge irregularly crenate. Spores dark yellow-brown in mass, pale yellow-brown when magnified, oblong-oval, smooth, $9-14 \times 5-7 \mu$.

Growing from a cavity in the stem of *Zanthoxylum Rhetsa*, Peradeniya, November, 9, 1917; July 4, 1921, &c. Type, No. 5482 in Herb. Peradeniya.

*Polyporaceæ.****Boletus xylophilus* n. sp.**

Pileus convex, in the larger undulating and slightly depressed in the centre, margin incurved, up to 12 cm. diameter, dark russet-brown, or yellow-brown, minutely scurfy, sometimes areolated; flesh up to 2.5 cm. thick, pale yellow, rapidly changing to blue when cut, colour soon fading, sometimes first becoming purple-red. Pore surface yellow, or greenish-yellow, blue when bruised, with a deep sinus round the stalk, and a few pores decurrent on the stalk; pores up to 1 cm. deep, mouth oval, 0.4 mm. diameter. Stalk up to 7.5 cm. high, 2 cm. diameter, almost equal, or attenuated upwards, red-brown, paler towards the apex, with longitudinal anastomosing streaks, minutely pruinose. Spores broadly oval, sometimes flatter on one side, smooth, brownish-yellow, $4-5 \times 3 \mu$. Mycelium sulphur-yellow, sometimes ascending the base of the stem.

Round decaying stumps, or on rotting logs, Urumuwela, 1906; Peradeniya, November, 1909; Eladuwa, June, 1910; type in Herb. Peradeniya, No. 5812, Peradeniya, November, 1918. Specimens, probably this species, up to a foot in diameter, have been seen in a damaged condition in the low-country.

Boletus aureomycetinus Baker and *Boletus pernanus* Baker, from Singapore, which both have yellow mycelium, differ, *inter alia*, in not changing colour when broken.

***Boletus sylvestris* n. sp.**

Pileus 3 cm. diameter, pale bay-brown, rather darker in the centre, convex, centre slightly depressed, dull, minutely pruinose; flesh rather thick, white, turning brownish when cut. Stalk equal, curved, stuffed, 3.5 cm. long, 4 mm. diameter, brownish, whitish at the base, yellow at the apex, covered with minute red-brown points. Pore surface greenish-yellow, with a deep sinus round the stalk; pores 4 mm. long, mouth angular, up to 0.5 mm. diameter.

On the ground in jungle, Hapugastenna, October, 1909; No. 2990 in Herb. Peradeniya.

Polyporus dichrous Fr.

Yatiellagalla, July, 1917 ; No. 5424 (det. Lloyd).

Polyporus stereinus Berk.

Pundaluoya, October, 1917 ; No. 5384 (det. Lloyd).

Polyporus non-gravis Lloyd.

Peradeniya, December, 1914 ; No. 4462 (det. Lloyd).

Polyporus colossus Fr.

Tirrukovil, December, 1918 ; No. 5827. Anuradhapura, December, 1919. This species appears to be very common on the east of the Island during the rains of the north-east monsoon, but it has not yet been found on the western side, where rain falls in both monsoons.

Polyporus resinaceus Boud.

Hakgala, April, 1919 ; No. 6040 (det. Lloyd).

Polyporus Mangiferæ Lev.

Habarana, November, 1918 ; No. 5823 (det. Lloyd). A form of *Fomes lucidus* (Leys.) Fr.

Polyporus abruptus Berk.

Peradeniya, November, 1914 ; No. 4249. Henaratgoda, August, 1916 ; No. 4902. Tebuwana, September, 1916 ; No. 4907. (All det. Lloyd).

Polyporus molliculus Lloyd.

Hakgala, April, 1919 ; Nos. 5967, 5968.

Polyporus fumoso-olivaceus Lloyd.

Diyatalawa, July, 1917 ; No. 5381 (det. Lloyd).

Polyporus velutinosus Lloyd.

Peradeniya, August, 1916 ; No. 4904 (det. Lloyd). Kuru-negala, October, 1916 ; No. 5382 (det. Lloyd).

Polyporus intactilis Lloyd.

Hakgala, May, 1912 ; No. 3448 (det. Lloyd).

Polyporus Clemensiæ Murrill.

Pundaluoya, October, 1917 ; No. 5383 (det. Lloyd). Kiri-wanaketiya, December, 1917 ; No. 5450 (det. Lloyd).

Polyporus inornatus n. sp.

Pilei dimidiate, small, orbicular, 2.5×1 cm., rather thick, margin obtuse, often united laterally and decurrent in long resupinate patches, white, with a brown tinge towards the base of the pileus, radially silky or minutely tomentose; hymenium white, becoming pinkish when dry; pores small, dissepiments thin. The edge of the pileus turns red when bruised.

On dead wood (fence posts), Henaratgoda, August, 1916; type, No. 5154 in Herb. Peradeniya. Also 4903 in Herb. Peradeniya.

Fomes imitator n. sp.

Conchoid, dorsally attached, more or less circular in plan, up to 3 cm. diameter, 8 mm. thick, cream-coloured to pale ochraceous, with a black patch extending from the point of attachment, concentrically grooved, glabrous; hymenium concave, margined, "glancing"; pores small, dissepiments thin; context white or cream, very thin, almost the whole thickness of the fungus consisting of layers of pores.

Hakgala, April, 1919; No. 6061 in Herb. Peradeniya. Resembles *Fomes ochroleucus*, but differs in its pore surface and internal structure.

Fomes yucatanensis Murrill.

Hakgala, April, 1919; No. 6050 (det. Lloyd).

Fomes pachyphloeus Pat.

Peradeniya, October, 1916; No. 4946 (det. Lloyd).

Fomes atro-albus P. Henn.

Hakgala, April, 1919; No. 5964.

Polystictus cinerascens Lév.

Henaratgoda, July, 1917; No. 5426 (det. Lloyd).

Polystictus tenuiculus Lloyd.

Peradeniya, October, 1916; No. 4927 (det. Lloyd).

Poria endoxantha n. sp.

Rose-pink to salmon-pink when fresh, with a white margin, becoming brown or blackish-brown when bruised; internally sordid-yellow. Widely effused. Total thickness up to 4 mm.,

pore layer stratosse, basal layer dirty-yellow, soft, about 1 mm. thick. Pores when fresh, minute, rounded, about 0.1 mm. diameter, dissepiments thick, fleshy.

On dead wood, Golinda, August, 1918 ; No. 5781 in Herb. Peradeniya. When fresh resembles *Aleurodiscus Peradeniæ* B. & Br.

***Poria rubescens* n. sp.**

White, becoming red when bruised, and brownish-red when dry. Widely effused, soft, up to 0.8 mm. thick, with a thin byssoid basal layer, 0.1 mm. thick ; margin narrow, white, tomentose ; dissepiments thick when fresh, becoming thin and rigid when dry ; pores when dry angular, varying greatly in size, from 0.1 to 0.4 mm. diameter. No cystidia.

On rotten wood in large patches, Hakgala, No. 5546, December, 1917 ; No. 5995, April, 1919. Indistinguishable from the *Poria* form of *Polyporus interruptus* B. & Br. until bruised.

***Poria albocitrina* n. sp.**

Effused ; lemon-chrome, with white pore mouths, and therefore appearing white when viewed obliquely ; margin narrow, white, fimbriate ; basal layer very thin, white ; pores up to 4 mm. long, subangular, about 0.2 mm. diameter. Substance moist when fresh. Habit and texture of the *Poria* form of *Polyporus interruptus*.

On dead wood, Kiriwanaketiya, December, 1917 ; No. 5434 in Herb. Peradeniya.

***Poria sulphurea* n. sp.**

Sulphur-yellow with a broad, white, thin, effused, byssoid margin, becoming ochraceous without evident margin. Total thickness 0.5 mm., basal layer almost wanting. Pores oval or circular, up to 0.2 mm. diameter, edge irregular.

On dead wood, Hakgala, April, 1919 ; No. 5991 in Herb. Peradeniya. The fungus forms at first a widely effused, thin, white, byssoid patch, on which the pores are subsequently developed.

***Trametes Meyeni* Klotzsch.**

Peradeniya, June, 1916 ; No. 4910 (det. Lloyd).

Trametes picta Berk.

Hapugastenna, October, 1909 ; No. 2966 (det. Lloyd).

Trametes straminea Pat.

Peradeniya, March, 1917 ; No. 4992 (det. Lloyd).

Trametes nubila Fr.

Pitakande, Ambagamuwa, March, 1918 ; No. 5559 (det. Lloyd).

Trametes roseola Pat.

Pallegodde, January, 1912 ; No. 3317 (det. Lloyd).

Trametes Muelleri Berk.

Peradeniya, July, 1908 ; No. 2733 (det. Lloyd). Peradeniya, December, 1911, No. 3302 (det. Lloyd). Both these were included under *Trametes lactinea* Berk., in Ann. Perad., VI., p. 140. I am unable to distinguish between these two species.

Dædalea tenuis Berk.

Peradeniya, August, 1912 ; No. 3554 (det. Lloyd). "A thin form of *Dædalea flavida*" (Lloyd).

Dædalea flavida Lev.

Lloyd adopts this name for the species listed in Ann. Perad., VI., p. 140, as *Trametes ochroleuca*.

*Hydnaceæ.***Hydnum fragile** n. sp.

Mesopodial, with a stalk up to 6 cm. high, 1.5 cm. diameter, expanding above into overlapping pilei ; or forming rosettes up to 40 cm. diameter, arising from a central tubercular mass ; white, becoming pale ochraceous. Pilei orbicular or flabelliform, up to 15 cm. broad, 6 cm. long, 4 mm. thick, horizontal or suberect, sometimes infundibuliform, brittle, obscurely concentrically zoned, surface rough with warts and ridges radially arranged ; margin thick when fresh, minutely tomentose ; flesh white, with translucent bands, not cartilaginous. Aculei short, about 1 mm. long, conical. Spores white, globose or oval, $3-5 \times 3 \mu$. On the ground, Peradeniya, December, 1913, &c. ; type, No. 3994 in Herb. Peradeniya.

Hydnum nigrescens n. sp.

Dimidiate, or resupinate with scattered dimidiate pilei. Pilei convex, up to 4×3 cm., orbicular, often laterally fused, stout, densely fasciculato-strigose, brownish-white, becoming brown or purple-brown; spines up to 8 mm. long, terete, acute, rigid, cartilaginous, 0.4 mm. diameter, tapering regularly to the apex, cinereous, or purple-gray, becoming black when dry. In the resupinate patches the spines arise from a rather thick, spongy, strigose subiculum, which is at first brownish-white, then brown.

Hakgala, on decaying logs, fairly common; type, No. 5110, Hakgala, April, 1917.

*Thelephoraceæ.***Corticium hypochroum n. sp.**

Effused, indeterminate, in oval patches about 3×1.5 cm.. ashy with a purple tinge, in some states yellowish-green: sterile margin orange-red, with a narrow yellow edge. Surface even, compact, not waxy; margin fimbriate. Total thickness up to 0.4 mm.; basal layer half the total thickness, a loosely interwoven net of straight hyaline hyphæ, 2-4 μ diameter, with a few adherent crystals; upper layer compact, densely filled at the base with red granules. Basidia clavate, $20-25 \times 6-8 \mu$; spores hyaline, broadly oval, $6-8 \times 4-5 \mu$. Cystidia (gleocystidia) subcylindric, thin-walled, apex obtuse, 7 μ diameter, projecting 60 μ .

On the dead stem of some climbing plant, Hakgala, December, 1917; No 5525 in Herb. Peradeniya.

Corticium vagans B. & C.

On stems of *Solanum tuberosum* L., Diyanilla, April, 1918, No. 5675 in Herb. Peradeniya.

Kordyana Commelinæ n. sp.

Hypophyllous; stromata minute, white, erumpent, about 0.1 mm. diameter, gregarious on pale green or white patches. Basidia clavate, $20 \times 6 \mu$, two-spored; spores clavate, hyaline, $7-8 \times 3-4 \mu$. Conidiophores narrow-clavate, 50 μ long, 4 μ diameter above, 1.5 μ diameter below; conidia (immature) globose, 2 μ diameter.

On leaves of *Commelina nudiflora* L., Haputale, November, 1917; No. 5684 in Herb. Peradeniya.

Porothelium reticulatum n. sp.

Livid brown when fresh, with a narrow white tomentose margin, widely effused, becoming pallid when dry. Cups close-set, subgelatinous when fresh, up to 0.2 mm. diameter, pruinose with white granules; substratum white, very thin, floccose. Basidia clavate, four-spored. When dry, the fungus cracks into irregular reticulated lines of cups.

On dead wood, Hakgala, April, 1919; No. 5971 in Herb. Peradeniya. Peradeniya, No. 6098, August, 1919, &c. This species was Thwaites 488, which was not named by Berkeley and Broome. Iodine stains the basidial layer yellow, and the walls of the cups brown.

Cyphella flagellata n. sp.

White, oboeonic, up to 1 mm. high, 0.8 mm. diameter above, villous with upwardly-directed, rigid hairs. Hairs up to 0.1 mm. long, 4 μ diameter, verrucose or covered with short blunt processes, terminating abruptly in a thin flagellum.

On dead leaves, Hakgala, April, 1917; No. 5244 in Herb. Peradeniya.

Cyphella grisea n. sp.

Grayish-white, pruinose, 1.2 mm. diameter, 0.8 mm. high, campanulate, mouth directed downwards, substance subgelatinous, covered with minute tetrahedral or irregular crystals, and a few hyaline encrusted hyphæ. Basidia clavate, $15 \times 6 \mu$. Spores globose, 4 μ diameter, with scattered spines up to 3 μ long.

On bark on living trees, Hakgala, December, 1917; No. 5509 in Herb. Peradeniya.

Dendrocyphella gen. nov.

Cups as in *Cyphella*, borne on long simple or branching stalks.

Dendrocyphella setosa n. sp.

Stalks up to 2 cm. high, 0.2 mm. diameter, simple or repeatedly branched, subulate, black, rigid, clothed with horizontally spreading setæ; cups apical, nutant, campanulate, up to 1 mm. long, and 0.75 mm. diameter, when fresh

flesh-coloured, pale brown when dry, clothed with long, dark brown setæ and short hairs, which are scattered towards the base, but crowded towards the margin. Long setæ usually simple, tapering, acute, 0·1–0·5 mm. long, 6–12 μ diameter, slightly swollen at the base. Short hairs, 30–40 μ long, straight or curved, clavate, covered, especially in the upper part, with short, spreading, truncate spines. Margin of the cup composed of similar hyaline hairs. Basidia cylindric, $24 \times 6 \mu$. Spores hyaline, narrow-oval, or pip-shaped, $5\text{--}6 \times 2\text{--}2\cdot5 \mu$.

On dead leaves of *Symplocos*, Hakgala, January, 1914, &c. ; No. 4089 in Herb. Peradeniya.

Clavariaceæ.

***Clavaria xylarioides* n. sp.**

Simple, clavate, up to 4 cm. high, 2 mm. diameter below, 4 mm. diameter above, terete, apex obtuse, violet-black, black at the base ; internally purple-brown, with a violet-black outer zone. Basidia cylindrico-clavate, about 40 μ high, 8 μ diameter below, 12 μ diameter above, four-spored ; sterigmata 10 μ high, conical to half the height, then hair-like. Spores broadly oval, $9\text{--}10 \times 7 \mu$, or globose 8–9 μ diameter. Subhymental layer violet by transmitted light.

On the ground, Peradeniya, December, 1914 ; No. 4389 in Herb. Peradeniya. Dewalakanda, August, 1919 ; No. 6096.

***Clavaria rosolana* n. sp.**

Pale rosolane purple (Ridgway 69'd) ; up to 4 cm. high ; base stout, up to 7 mm. diameter, short, soon dividing into stout branches which fork repeatedly ; upper angles broad and rounded ; tips short, obtuse. Spores white, smooth, spherical, 3–4 μ diameter, or oval, $4 \times 3 \mu$.

On the ground, Waga, August, 1917 ; No. 5249 in Herb. Peradeniya.

***Clavaria violacea* n. sp.**

Violet or amethyst, becoming brown when old ; about 3 cm. high, stout, up to 2·5 mm. diameter below, twice or thrice branched, lower axils acute ; tips usually once forked, with

short spreading points at a greater angle than the lower branches, points rather obtuse. Fasciculate, in clusters up to 3 cm. diameter.

On the ground, Henaratgoda, July, 1916; No. 4840 in Herb. Peradeniya.

Pistillaria actiniceps n. sp.

White, subtranslucent, up to 1.5 mm. high, 0.3 mm. diameter at the base, expanding upwards to 0.6 mm., sometimes slightly lobed above, covered everywhere, or sometimes only in the upper half, with upwardly-directed or radiating spicules. Spicules up to 200 μ long, hyaline, thick-walled, generally smooth, occasionally encrusted. Basidia clavate, $13 \times 5 \mu$, two-spored; sterigmata 8 μ high, 2 μ diameter below, conical to half their height, then linear, curved. Spores hyaline, globose or broadly oval, 8–12 μ diameter.

On dead stems of Bracken (*Pteris aquilina*) and *Rubus*, Hakgala, December, 1917; No. 5508 in Herb. Peradeniya.

Tremellaceæ.

Sirobasidium Brefeldianum A. Moll.

On a dead branch, Hakgala, December, 1917; No. 5510 in Herb. Peradeniya.

USTILAGINACEÆ.

Ustilaginoidea virens (Cooke) Tak.

On *Oryza sativa* Linn., Badulla, March, 1918; No. 5553 in Herb. Peradeniya.

UREDINACEÆ.

Uromyces Anotidis n. sp.

On *Anotis Richardiana* Hk. f., Hakgala, April, 1917.

Æcidia crowded, hypophyllous, covering the whole leaf, up to 0.25 mm. diameter, exoperidium white, well-developed, recurved. Exoperidial cells polygonal, $32\text{--}34 \times 12\text{--}20 \mu$, verrucose with close-set ridges and warts. Æciospores oval or subglobose, contents orange, wall hyaline, minutely verrucose, $16\text{--}22 \times 12\text{--}16 \mu$. Affected plants dwarfed, thickened, and etiolated.

Uredo sori hypophyllous, scattered, circular, 0.2 mm. diameter, cinnamon-brown. Uredospores oval or globose, yellow-brown, echinulate, $20-26 \times 17-20 \mu$.

Teleutosori amphigenous, up to 0.4 mm. diameter, scattered, cinnamon-brown, compact, pulvinate. Teleutospores fusoid or obconoid, apex strongly thickened (up to 16μ), truncate, strongly crested and incised, pale yellow-brown, almost hyaline, $30-36 \times 16-22 \mu$; pedicel up to 28μ long.

***Blastospora Hedyotidis* n. sp.**

On *Hedyotis Lessertiana* Arn., Hakgala, December, 1917; effete sori recorded as *Puccinia lateritia* B & C., in Ann. Perad., V., p. 231.

Sori hypophyllous, crowded, pulvinate, somewhat waxy, orange, becoming purple, up to 0.25 mm. diameter, on purple or blackish spots. Teleutospores hyaline, one-celled, oval, or slightly obclavate, $36-50 \times 20 \mu$, with a stout thickened pedicel almost as broad as the spore; producing at the apex a promycelium up to 80μ long, 10μ diameter.

? *Puccinia Arenariæ* (Schum.) Wint.

On *Cerastium indicum* W. & A., Hakgala, April, 1917.

Sori hypophyllous, pale brown, pulvinate, compact, up to 0.2 mm. diameter, confluent in patches up to 2 mm. diameter. Teleutospores pale yellow-brown, oblong, or oblong-oval, sometimes attenuated upwards, constricted at the septum, generally thin-walled, apex slightly thickened, $30-48 \times 12-14 \mu$; pedicel stout, hyaline, persistent, up to 40μ long.

? *Puccinia uralensis* Transsch.

On *Senecio scandens* D. Don, Hakgala, April, 1917; one leaf only.

Sori hypophyllous, circular, 0.3-0.5 mm. diameter, compact, pulvinate, reddish-brown, blackening, clustered in a patch about 8 mm. diameter. Teleutospores oblong or clavate, apex truncate or wedge-shaped, the upper cell the broader, constricted at the septum, apex thickened (up to 8μ), pale yellow-brown, $32-40 \times 16-18 \mu$; pedicel hyaline, tapering, $18-90 \mu$ long, $4-9 \mu$ diameter; mesospores (only two seen), pyriform, $20-24 \times 15-18 \mu$, pedicel 18μ long.

Apparently differs from *Puccinia uralensis* in not being "epidermide diu tectis," nor black.

***Puccinia Romagnoliana* Maire & Sacc.**

Uredo. On *Cyperus rotundus* L., Jaffna, March, 1917.

? ***Puccinia Duthiæ* Ell. & Tracy.**

Uredo. On *Andropogon pertusus* Willd., Peradeniya, April, 1917.

Uredospores globose, rather dark brown, minutely echinulate, 20-27 μ . Paraphyses short, clavate, hyaline.

***Puccinia Nakanishikii* Diet.**

Uredo. On *Cymbopogon Martini* Stapf. Peradeniya, February, 1917.

***Puccinia Isachnes* Petch : *Uromyces Isachnes* Petch, Ann. Perad., VI., p. 209.**

On *Isachne Kunthiana* W & A., Hakgala, April, 1917.

Uredo, on *Isachne Gardneri* Benth., Hakgala, April, 1917.

Teleutosori hypophyllous, circular, black, minute. Teleutospores yellow-brown, darkening above, oblong-oval or clavate, constricted at the septum, apex moderately thickened and usually rounded, 34 — 44 $\times$ 18-24 μ .; pedicel pale brown, up to 40 μ long, 5 μ diameter.

***Phragmidium zeylanicum* n. sp.**

On *Rubus lasiocarpus* Sm., Hakgala, April, 1917.

Uredo sori amphigenous, scattered, minute, orange. Uredospores globose or oval, hyaline, echinulate, with rather long scattered spines, 20-28 $\times$ 19-24 μ . Paraphyses ovate, hyaline, thin-walled, up to 50 $\times$ 20 μ .

Teleutosori hypophyllous, circular, minute, scattered, black. Teleutospores fuliginous, thin-walled, epapillate, smooth, 4-9-septate, constricted at the septa, apical cell rounded or subconoid, basal cell elongated usually hyaline, attenuated below or sometimes narrow-cylindric. 70-140 $\times$ 26-30 μ .; pedicel short, hyaline.

***Hemileia Canthii* B. & Br.**

On *Canthium Rheedii* DC., Peradeniya, February, 1917.

Melampsora Helioscopiæ (Pers.) Cast.

Uredo. On *Euphorbia Rothiana* Spreng., Hakgala, April, 1919.

Uredo Hyperici-japonici n. sp.

On *Hypericum japonicum* Thunb., Hakgala, April, 1917.

Sori hypophyllous, circular, scattered, up to 0·4 mm. diameter, surrounded by the upturned epidermis. Spots red-brown, the whole leaf or plant becoming red-brown, Uredospores oval, $18-24 \times 14-18 \mu$, or globose, $18-20 \mu$. thick-walled, yellow-brown, spinulose. Paraphyses hyaline, cylindric, almost equal, up to $40 \times 6 \mu$.

Uredo Meliosmæ n. sp.

On *Meliosma Wightii* Planch., Hakgala, April, 1917.

Sori hypophyllous, scattered, minute, circular, pale brown. Uredospores oval, narrow-oval, or sub-pyriform, hyaline, strongly echinulate, $28-36 \times 14-18 \mu$. Paraphyses hyaline, capitate, up to 50μ high, 8μ diameter below, 25μ diameter above, or clavate, hooked at the apex : apex thickened, pale yellow-brown.

Uredo Tephrosiæ Rabh.

On *Tephrosia purpurea* Pers., Jaffna, March, 1917.

Uredo Cassiæ-bicapsularis n. sp.

On *Cassia bicapsularis* L., Peradeniya, February, 1917, No. 5033 in Herb. Peradeniya.

Sori hypophyllous, circular or elongated, cinnamon, on irregular blackened areas, frequently along the veins. Uredospores oval or globose, yellow-brown, minutely echinulate, $14-18 \times 8-14 \mu$.

Uredo Argyreïæ n. sp.

On *Argyreia liliæfolia* Wight, Jaffna, March, 1917.

Sori hypophyllous, large, circular, up to 0·6 mm. diameter, or larger by confluence, dark brown, surrounded by the upturned epidermis. Uredospores rather dark brown, globose or elliptic, thick-walled, outer layer of wall hyaline, echinulate with short scattered hyaline spines, $28-40 \times 28-32 \mu$.

Uredo Phyllanthi-reticulati n. sp.

On *Phyllanthus reticulatus* Poir., Jaffna, March 1917 : No. 5023 in Herb. Peradeniya.

Sori hypophyllous, scattered, golden-brown, circular, up to 0.4 mm. diameter. Uredospores pale yellow-brown to hyaline, oval, thickwalled, echinulate, $20-24 \times 12-18 \mu$. Paraphyses clavate, regularly expanding upwards, or abruptly inflated into an ovoid head, yellow or yellow-brown above, hyaline towards the base, apex strongly thickened, up to 60μ long, 16μ diameter above.

Uredo Cudraniae n. sp.

On *Cudrania javanensis* Trec., Hakgala, April, 1917.

Sori hypophyllous, clustered, peritheciiform, up to 0.4 mm. diameter, on yellow spots. Uredospores oval or subglobose, almost hyaline, echinulate, $24-32 \times 16-24 \mu$. Paraphyses short, subcylindric or slightly clavate, hyaline, up to $30 \times 6 \mu$.

Uredo Boehmeriae Diet.

On *Boehmeria platyphylla* Don, Haputale, November, 1917.

Uredo Marisei n. sp.

On *Mariscus Sieberianus* Nees, Poonagalla, November, 1917.

Sori hypophyllous, oval or oblong, up to 2 mm. long, 0.4 mm. broad, covered by the epidermis. Uredospores oval or pyriform, pale yellow-brown to hyaline, echinulate, $18-32 \times 16-20 \mu$. Paraphyses straight, irregularly cylindric, slightly inflated or attenuated upwards, pale yellow-brown, up to $66 \times 6 \mu$.

Uredo caricicola n. sp.

On *Carex Walkeri* Arn., Hakgala, April, 1917 ; on *Carex baccans* Nees, Haputale, June, 1917.

Uredo sori hypophyllous, oval, up to 0.3 mm. long, pale brown, for a long time covered by the epidermis. Uredospores pale yellow-brown to hyaline, oval, or pyriform, thick-walled, verrucose with scattered blunt spines, $18-30 \times 13-16 \mu$.

Uredo Panici-villosi n. sp.

On *Panicum villosum* Lam., Hakgala, April, 1919.

Sori chiefly epiphyllous, circular, 0.2 mm. diameter, or oval, 0.5×0.2 mm., ferruginous, surrounded by the ruptured epidermis. Uredospores irregularly oval or globose, usually

thin-walled, pale yellow-brown, minutely spinulose, $24-34 \times 18-24 \mu$; germ pores, one, or two.

Uredo Anthistiriæ Petch.

On *Anthistiria gigantea* Cav., Peradeniya, February, 1917.

Uredo Ischæmi-ciliaris Petch.

Specimen, Waga, March, 1917, has almost hyaline, curved, irregularly clavate, or subcylindric paraphyses up to $50 \times 12 \mu$.

Uredo Arundinariæ Syd.

On *Arundinaria japonica* Sieb. and Zucc., Peradeniya, February, 1919.

Uredo Dendrocalami n. sp.

On *Dendrocalamus strictus* Nees, Peradeniya, January, 1910; January, 1912.

Sori hypophyllous, minute, oval or circular, about 0.2×0.1 mm., pale ferruginous, situated in lines on pale brown, longitudinal streaks. Uredospores oval or pyriform, $26-35 \times 19-22 \mu$, or globose, $18-28 \mu$ diameter, contents yellow, wall hyaline, echinulate. Paraphyses curved, clavate, hyaline, thick-walled or almost solid, the lumen occupying one-half to two-thirds the length and situated nearer the concave side, $50-70 \times 7-12 \mu$.

Uredo Lophatheri n. sp.

On *Lophatherum gracile* Brongn., Henaratgoda, January, 1919.

Sori amphigenous, usually oval, sometimes linear, pale brown, surrounded by the upturned epidermis, $0.4-0.8 \times 0.2-0.3$ mm. Uredospores oval, subglobose, or pyriform, pale yellow-brown to almost hyaline, thick-walled, strongly echinulate, $20-28 \times 16-20 \mu$. Paraphyses not found.

PHYCOMYCETÆ.

Mucoraceæ.

Rhizopus nigricans Ehren.

On bread, Peradeniya, July, 1917; No 5257 in Herb. Peradeniya.

Pilobolus pullus Massee.

On cowdung, Hakgala, December, 1917; No. 5502 in Herb. Peradeniya.

Scattered; total height 0·6–0·8 mm., clavate, expanding almost from the base, 0·3 mm. diameter above. Sporangia oval, black, $0\cdot25 \times 0\cdot15$ – $0\cdot2$ mm.; wall black-brown, smooth, not areolated. Spores oval, pale yellow, 8 – 10×5 – 6μ .

*Entomophthoraceæ.***Empusa Aulicæ** Reich.

On larvæ of *Agrotis*, Peradeniya, January, 1918 (det. Thaxter).

Empusa papillata Thaxt.

On a dead fly, Peradeniya, December, 1914; No. 4358 in Herb. Peradeniya.

Metarrhizium Anisopliæ (Metsch.) Sorokin.

On a cricket, Hakgala, December, 1917; No. 5475 in Herb. Peradeniya.

*Saprolegniaceæ.***Pythium Debaryanum** Hesse.

On seedlings of *Alyssum* and *Silene*, Hakgala, January, 1918; Nos. 5452, 5453, in Herb. Peradeniya.

*Peronosporaceæ.***Cystopus Portulacæ** (DC.) Lev.

On *Portulaca quadrifida* L., Ambalangoda, August, 1917; No. 5463 in Herb. Peradeniya.

Phytophthora Colocasizæ Rac.

On *Colocasia* sp., Peradeniya, October, 1917; No. 5456 in Herb. Peradeniya.

Phytophthora Phaseoli Thaxt.

On Lima Bean, Peradeniya, Gangaruwa, September, 1917; No. 5459 in Herb. Peradeniya.

Phytophthora Nicotianæ Rac.

On tobacco seedlings, Teldeniya, April, 1919; No. 6114 in Herb. Peradeniya.

Phytophthora Meadii McRae.

On fruit, &c., of *Hevea brasiliensis*, Hunasgiriya, August, 1919 ; No. 6084 in Herb. Peradeniya.

Peronospora parasitica (Pers.) de Bary.

On *Brassica juncea* Hk. f. & Th., Peradeniya, January, 1918 ; No. 5611 in Herb. Peradeniya.

PYRENOMYCETÆ.

*Perisporiaceæ.***Eurotium repens** de Bary.

On drying plants in the herbarium, Hakgala. April, 1917 ; No. 5268 in Herb. Peradeniya. The usual species on herbarium specimens at Hakgala (5,600 ft.).

Eurotium orientale n. sp.

Perithecia lemon-yellow, globose, smooth, 120–180 μ diameter, in clusters on loose tufts, up to 0.5 mm. diameter, of radiating red or red-brown hyphæ. Hyphæ red-brown, hyaline at the tips, 4–6 μ diameter, clothed with long spines, or rough with incrustations in warts or granules. Asci eight-spored, ovate or globose, 12–15 μ diameter ; ascospores pale yellow, lenticular, circular in one aspect and 5–6 μ diameter, in the other ovoid, ends truncate and slightly incised, 5–6 $\times$ 3–4 μ . Conidia greenish-fuscous, strongly spinulose, spherical, 3–7 μ diameter, or oval, 6–7 $\times$ 5–4 μ , borne singly on short lateral pedicels on the red mycelium.

On drying plants in the herbarium, Peradeniya, August, 1906 ; No. 5518 in Herb. Peradeniya. The common species on drying plants at Peradeniya. Also on herbarium specimens from Burma ; No. 5519 in Herb. Peradeniya.

In some cases the mycelium exactly resembles that of *Myriococcum spinuligerum* Penz. & Sacc. From the descriptions, *Eurotium lateritium* var. *asperulum* differs in its verrucose ascospores, and *Eurotium rubrum* in the perithecia being ultimately red-brown.

Balladyna Butleri Syd.

On bamboo, 1910 ; No. 5731 in Herb. Peradeniya.

Zukalia Rubi n. sp.

Spots brownish-red, hypophyllous, sometimes extending over the whole under surface of the leaf; mycelium hyaline, scanty. Perithecia scattered, globose, about 0.25 mm. diameter, black, bearing, especially towards the apex, simple, septate, brown, almost equal, obtuse appendages, up to $75 \times 5 \mu$; wall parenchymatous. Asci cylindrico-clavate with a short, often curved, foot, eight-spored, spores obliquely uniseriate, $60-66 \times 10-12 \mu$. Spores hyaline, fusoid, three-septate, not constricted, $18-20 \times 4 \mu$.

On leaves of *Rubus moluccanus* L., Hakgala, April, 1917: No. 5261 in Herb. Peradeniya.

? Zukaliopsis Heveæ n. sp.

Mycelium forming a superficial, separable, felted, rather dense covering over the whole upper surface on the leaf, blackish-brown to olivaceous, with a white shining margin: basal hyphæ hyaline, regular, about 3μ diameter, without hyphopodia, passing into branching chains of hyaline or fuscous moniliform cells, $6-10 \times 5-6 \mu$. Perithecia 0.3 mm. diameter, flattened globose or discoid, depressed in the centre, black, minutely rugose, astomate, with a few hyaline radiating hyphæ at the base; wall parenchymatous, cells not radial, circularly arranged round the apex, with a patch of small clavate cells which simulate periphyses. Asci clavate, attenuated below, eight-spored. $96-120 \times 20-26 \mu$; paraphyses linear. Spores hyaline, muriform, with four to nine transverse septa, and longitudinal septa in all but the terminal cells, or in only three of the upper, oblong oval, $22-30 \times 8-9 \mu$, or ovato-fusoid, $32-48 \times 14-18 \mu$, constricted at the septa, with a thick mucous coat.

On leaves of *Hevea brasiliensis* Muell.-Arg., Hewagam, October, 1918, &c.; No. 5798 in Herb. Peradeniya.

*Sphæriaceæ.***Physalospora Cyperi** n. sp.

Spots up to 2 mm. diameter, oval or circular, sometimes confluent; epidermis blistered and whitish. Perithecia immersed, crowded, black, up to 0.3 mm. diameter, with pale

brown mycelium in the adjacent cells ; wall pale brown by transmitted light. Asci cylindrico-clavate, eight-spored, spores biseriate, $140 \times 16 \mu$; paraphyses numerous, linear. Spores hyaline, narrow-oval, continuous, ends obtuse or subtruncate, $24-28 \times 6-7 \mu$.

On leaves of *Cyperus arenarius* Retz, Colombo, December, 1917 ; No. 5649 in Herb. Peradeniya.

Trichosphaeria sparsibarba n. sp.

Perithecia scattered or crowded, erumpent, almost superficial, subconoid, black, up to 0.4 mm. diameter, sparingly clothed with spreading setae ; wall parenchymatous ; setae up to 0.4 mm. long, 20μ diameter below, slightly tapering, obtuse, septate, very thick-walled. Asci clavate, eight-spored, spores biseriate, $110-120 \times 8-10 \mu$; paraphyses linear. Spores hyaline, continuous, oblong-oval or subcymbiform, straight or curved, $16-22 \times 5 \mu$.

On dead bamboo, Hakgala, April, 1917 ; No. 5341 in Herb. Peradeniya.

Desmotascus cocoes n. sp.

Stromata peritheciiform, immersed, sub-prominent, black, lenticular or globose, 0.25 mm. diameter, parenchymatous. Asci embedded in hyaline parenchymatous tissue, clavate, shortly pedicellate, eight-spored, spores biseriate, $80-90 \times 20-22 \mu$. Spores hyaline, continuous, oval or cymbiform, ends rounded, $20-30 \times 10-12 \mu$.

On leaves of *Cocos nucifera* L., Solomon Islands, June, 1917 ; No. 5231 in Herb. Peradeniya. Also Delwita, Ceylon, June, 1918.

Rosellinia albocincta n. sp.

Perithecia usually scattered, sometimes clustered, and occasionally fused in pairs, superficial, hemispherical, black, smooth, dull, about 1 mm. diameter, 0.6 mm. high, seated on a thin, white, effused film of mycelium ; ostium black, conical, sometimes surrounded by a paler area which may be depressed at the outer edge ; wall brittle, discontinuous over the base. Asci cylindric, spores obliquely uniseriate, sporiferous part $100 \times 10 \mu$; paraphyses filiform. Spores black-brown, oval, inequilateral, or broadly cymbiform, $10-16 \times 6-8 \mu$.

On dead wood, Hakgala, December, 1917; No. 5579 in Herb. Peradeniya. There are examples of this in Thwaites's specimen of *Rosellinia rhypara* B. & Br., in Herb. Peradeniya (Thw. 555); the latter has larger spores, no white film, and a more globose perithecium.

***Rosellinia Beccariana* Ces.**

On dead *Erythrina*, Wariapola, January, 1918; No. 5555 in Herb. Peradeniya.

Perithecia crowded, superficial, depressed globose, often distorted by mutual pressure, up to 4 mm. diameter, purple-black, with a broad darker area round the ostium, smooth, but cracking concentrically when dry; wall carbonaceous, fragile; ostium black, conical, obtuse, up to 0.5 mm. high, 0.7 mm. diameter at the base. Spores black-brown, lanceolate or narrow cymbiform, often inequilateral, $40-70 \times 6-8 \mu$, the apices usually attenuated into a point 5μ long.

The original description states that the perithecia are obversely pyriform.

***Sordaria fimiseda* Ces. & de Not.**

On cowdung, Hakgala, December, 1917; No. 5504 in Herb. Peradeniya.

***Sordaria communis* Speg.**

On cowdung, Hakgala, September, 1918; No. 5797 in Herb. Peradeniya, &c.

***Sordaria citrina* n. sp.**

Superficial, scattered or clustered, conoid, about 1 mm. high, 0.6 mm. diameter, lemon-yellow, subtranslucent when fresh, densely clothed with short yellow hyphæ and attached to the substratum by yellow mycelium; apex black, straight. Perithecial wall parenchymatous, yellow to brownish-yellow, blackening at the base and apex; mass of immature asci and paraphyses yellow, Asci cylindric, tapering below, eight-spored, $190 \times 16 \mu$; paraphyses numerous, linear, slightly inflated at the apex, containing yellow granules. Immature spores cylindric, pale yellow, multiguttulate, $80 \times 4 \mu$. Mature spores oval, acuminate at the apex, truncate at the base, black, $16-20 \times 8-9 \mu$, with a basal

appendage, which soon disappears; in some cases the immature spore has a thin appendage at each end, and the mature spore a short, thin, apical appendage.

On elephant dung, Hakgala, common; type, No. 5481 in Herb. Peradeniya, December, 1917.

***Sordaria pilosa* n. sp.**

Perithecia superficial, scattered, conoid, 0.5 mm. high, 0.3 mm. diameter, black, appearing gray when magnified, covered with rigid projecting hairs; apex straight, papillate. Hairs straight, or curved at the tip, septate, pale purplish-brown, almost hyaline at the apex, equal, or inflated or attenuated above, $64-70 \times 4 \mu$. Perithecial wall with a blackish-brown outer layer, hyaline internally, the outer layer exhibiting areolæ when mounted. Asci up to $250 \times 15 \mu$, cylindric-clavate, with a long tapering pedicel, eight-spored; paraphyses diffuent. Immature spores cylindric, $60 \times 5 \mu$. Mature spores oval, black, truncate at the base, $18-22 \times 8-10 \mu$, with a hyaline basal appendage, sometimes with a short apical appendage, 6μ long.

On elephant dung, Hakgala, January, 1918; No. 5503 in Herb. Peradeniya.

***Sordaria byssiseda* n. sp.**

Perithecia scattered or clustered, ovate, apex straight, attached to the substratum by a dense web of coarse purple-brown hyphæ, 5μ diameter, in which the perithecia are sometimes partly embedded; perithecia covered in the upper part with rigid, spreading setæ, purple-brown, septate, attenuated upwards, regular, up to 90μ long, 7μ diameter below, 4μ diameter at the apex. Asci cylindric-clavate, $220 \times 20 \mu$, eight-spored. Immature spores cylindric, $48 \times 5 \mu$, with sometimes a thin appendage at each end. Mature spores black, oval, truncate at the base, $12-16 \times 6 \mu$, with a stout basal appendage which sometimes terminates in a fine tail, and sometimes a thin apical appendage up to 10μ long; all appendages soon disappearing.

On dead wood, Hakgala, December, 1917; No. 5507 in Herb. Peradeniya.

Sphærella spinicola E. & E. ?

On prickles of cultivated Rose, Badulla, November, 1917 ; No. 5408 in Herb. Peradeniya.

Perithecia subepidermal, black, 0·2 mm. diameter, slightly prominent ; wall membranous, of large cells ; ostiolum large, 30 μ diameter, not elevated. Asci narrow-oval or clavate, shortly pedicellate or almost sessile, eight-spored, spores biseriate, 40–60 $\times$ 9 μ . Spores narrow-oval or fusoid, hyaline, one septate, constricted at the septum, with a stout mucilaginous outer coat, 14–17 $\times$ 5–7 μ .

Sphærella spinicola E. & E. was described as having continuous spores, 12–15 $\times$ 5–6 μ , and asci, p. spor., 45 $\times$ 12 μ . It is listed in Saccardo as *Læstadia*.

Sphærella citricola McAlp.

On *Citrus Limonum* Risso, Hakgala, April, 1917 : No. 5168 in Herb. Peradeniya.

Sphærella Erythrinæ Koord.

On leaves of *Erythrina lithosperma* Bl., Balangoda, November, 1918 ; No. 5820 in Herb. Peradeniya.

Sphærella Gastonis Sacc.

On leaves of *Cocos nucifera* L., Delwita, June, 1918 ; No. 5746 in Herb. Peradeniya.

Sphærella Mappiæ n. sp.

Spots pale brown, circular, up to 2 cm. diameter, often irregularly zoned. Perithecia hypophyllous, crowded, immersed, black, about 0·1 mm. diameter. Asci clavate, narrowed above, thick-walled, almost sessile, spores biseriate, 36–40 $\times$ 12–14 μ ; no paraphyses. Spores narrow-oval or fusoid, hyaline, one septate, 12–15 $\times$ 3·5–4 μ .

On leaves of *Mappia ovata* Miers, Hakgala, April, 1917 ; No. 5236 in Herb. Peradeniya.

Sphærella Vernoniæ n. sp.

Spots usually small, circular, red-brown, arid, 2–3 mm. diameter, becoming confluent and irregular. Perithecia immersed, visible on either side of the leaf, crowded in the centre of the spot, about 0·1 mm. diameter, ostiola not projecting. Asci ovate or oblong-ovate, eight-spored, spores

biseriate, $40-55 \times 13-18 \mu$. Spores fusoid, ends obtuse, one septate, slightly constricted, the upper cell the broader and sometimes subacuminate, $13-16 \times 6-9 \mu$.

On leaves of *Vernonia Hookeriana* Arn., Peradeniya, October, 1917 ; No. 5399 in Herb. Peradeniya.

Sphærella Senecionis n. sp.

Spots dark brown to black, arid. Perithecia epiphyllous, black, immersed, prominent. Asci broadly clavate or oval, shortly pedicellate, eight-spored, spores biseriate. Spores hyaline, narrow-oval or fusoid, ends obtuse, one septate, not constricted, $13-15 \times 4 \mu$.

On leaves of *Senecio scandens* Don, Hakgala. April, 1917 ; No. 5262 in Herb. Peradeniya.

Sphærella Lobeliæ n. sp.

Spots irregularly oval, brownish-white, becoming membranous, translucent, surrounded by a brown zone and a narrow purple margin. Perithecia immersed, epiphyllous, scattered, up to 120μ diameter, black. Asci clavate or narrow-oval, eight-spored, $40 \times 8 \mu$, paraphyses absent. Spores cylindric, ends rounded, hyaline, one septate, not constricted, $11-15 \times 3 \mu$.

On leaves of *Lobelia nicotianæfolia* Heyne, Haputale, November, 1917 ; No. 5625 in Herb. Peradeniya.

Bertia turbinata n. sp.

Perithecia superficial, clustered, black, ovate, 0.75 mm. diameter, collapsing and becoming turbinate, tuberculate with close-set elevations, wall thick. Asci clavate, long-pedicelled, spores biseriate, $160-170 \times 16-18 \mu$, sporiferous part $80-100 \mu$ long ; paraphyses numerous, linear. Spores subcylindric or narrow-oval, ends obtuse, straight or slightly curved, greenish-hyaline, one septate, not constricted, sometimes four guttulate, $20-30 \times 6-7 \mu$.

On a dead branch, Peradeniya, January, 1917 ; No. 5302 in Herb. Peradeniya.

Bertia tessellata n. sp.

Perithecia superficial, globose or ovoid, up to 0.8 mm. diameter, black, rugose, usually with a smooth area round the papillate ostium ; wall when mounted areolated, consisting

of dense, more or less stellate masses united by thinner areas of parallel hyphæ 6 μ diameter. Asci narrow-clavate, eight-spored, spores biseriate, $125 \times 10 \mu$; paraphyses numerous, filiform. Spores pale fuscous, fusoid, one then three septate, constricted at the median septum, median septum prominent, the other two indistinct, ends rounded, $24-30 \times 4.5-5 \mu$.

On dead stems of *Amomum*, Hakgala, December, 1917; No. 5527 in Herb. Peradeniya.

Massarina biconica n. sp.

Perithecia immersed, scattered or occasionally confluent, globose, 0.25 mm. diameter, ostiola not projecting. Asci cylindrico-clavate, thick-walled, shortly pedicellate, spores obliquely uniseriate, $90 \times 20 \mu$; paraphyses numerous. Spores greenish-hyaline, with a gelatinous outer coat, three septate, strongly constricted at the median septum, less strongly at the other two, biconoid, with ends acuminate, obtuse, or fusoid, $24-32 \times 7-12 \mu$.

On dead branches of *Hevea brasiliensis* Muell.-Arg., Gangaruwa, February, 1917; No. 5006 in Herb. Peradeniya.

Leptosphaeria Molleriana Alm. & de Cam.

On *Cocos nucifera* L., Delwita, June, 1918; No. 5750 in Herb. Peradeniya.

Ceratostomaceæ.

Lentomita ovalis n. sp.

Perithecia immersed, laterally oval, up to 0.4 mm. diameter, 0.25 mm. high; wall brown, membranous; ostiolum projecting, cylindric, more or less straight, black, up to 0.75 mm. long, 66 μ diameter, composed of parallel hyphæ. Asci clavate, eight-spored, spores biseriate, sporiferous part $34 \times 6 \mu$. Spores narrow-oval, one septate, not constricted, hyaline, $8-10 \times 2-3 \mu$. Paraphyses numerous.

On dead herbaceous stems, Hakgala, April, 1917; No. 5342 in Herb. Peradeniya.

Valsaceæ.

Eutypa conjuncta n. sp.

Stroma linear or circular, up to 1 mm. diameter and 0.4 mm. high, partly embedded in the wood, and elevating the bark, consisting of three or four confluent perithecia in the

linear, and up to eight in the circular forms ; a thin layer of mycelium underlies the bark and unites the groups of perithecia ; no definite black line in the wood. Perithecia 0·3–0·4 mm. diameter, usually angled by mutual pressure, vertically compressed. Ostiola projecting in clusters, slightly elevated above the bark, up to 0·6 mm. high, cylindric, slightly inflated at the apex. Mass of asci and spores fuscous. Asci clavate, attenuated into the tapering pedicel, eight-spored, spores biseriate, sporiferous part, $10-12 \times 4 \mu$. Spores cylindric, curved, greenish-hyaline, $3-4 \times 1.5 \mu$.

On branches of *Cedrela serrata* Royle, Haputale, November, 1917 ; No. 5512 in Herb. Peradeniya.

***Peroneutypa variabilis* n. sp.**

Perithecia scattered or clustered, 0·4–0·5 mm. diameter, immersed in the wood, sometimes in groups of up to six ; ostiola projecting, solitary or in small groups, black, cylindric, 0·7–2·5 mm. high, 0·1–0·2 mm. diameter. Asci clavate, with a tapering pedicel, eight-spored, sporiferous part $12-18 \times 3 \mu$. Spores greenish-hyaline, cylindric, curved, $3-5 \times 1.5-2 \mu$.

On dead herbaceous stems, Peradeniya, February, 1918 ; No. 5517 in Herb. Peradeniya.

***Melanconiella stellata* n. sp.**

Stromata scattered, immersed in the cortex, subconoid, 0·75 mm. diameter, composed of up to eight, thin-walled, loosely united perithecia, and crowned by a cylindric, parenchymatous column, 0·4 mm. diameter, which just projects above the bark and divides above into four or five wedge-shaped lobes. Perithecia up to 0·3 mm. diameter, angular ; stroma in horizontal section crenate, with one common ostiolum. A black line in the cortex above the stroma, extending laterally indefinitely ; no black line in the wood. Perithecial wall thin, pale brown or hyaline. Asci cylindric, shortly pedicellate, eight-spored, spores obliquely uniseriate, $100-110 \times 10-12 \mu$; paraphyses numerous. Spores oval or oblong-oval, one septate, not, or slightly, constricted, ends obtuse, brown, wall and septum thick, minutely verrucose, $10-15 \times 5-6 \mu$.

On dead branch of *Camellia theifera* Dyer, Craig, January, 1918; No. 5472 in Herb. Peradeniya.

Thyridaria Pteridis n. sp.

Stromata immersed, oval in plan, up to 3 mm. long, 0.4 mm. broad, lenticular, 0.4 mm. high, raising the epidermis in elongated oval patches which split longitudinally, upper part consisting of loosely interwoven hyaline hyphæ with a black outer layer, the lower half consisting of the host tissues bounded by a black line. Perithecial cavities linearly arranged, depressed globose, 0.4 mm. diameter, 0.2 mm. high, with a distinct thin parenchymatous wall; ostiola not projecting. Asci clavate, shortly pedicellate, thick-walled, eight-spored, spores biseriata, $150-170 \times 24-30 \mu$; paraphyses linear. Spores fuscous, cymbiform, slightly curved, usually five septate, occasionally six septate, constricted at the septa, one loculus usually inflated, with a stout, hyaline, gelatinous coat, $32-40 \times 8-10 \mu$.

On stems of *Pteris aquilina* L., Hakgala, December, 1917; No. 5528 in Herb. Peradeniya.

Dothidaceæ.

Phyllachora Vanderystii Theiss. & Syd.

On leaves of *Panicum plicatum* Lamk., Poonagalla, November, 1917; No. 5690 in Herb. Peradeniya.

Phyllachora Winkleri Syd.

On *Paspalum scrobiculatum* L., Peradeniya, April, 1917; No. 5320 in Herb. Peradeniya.

Catacauma gracillimum (Speg.) Theiss. & Syd.

On *Fimbristylis monostachya* Hassk., Peradeniya, April, 1917; No. 5319 in Herb. Peradeniya.

Oligostroma Strychni n. sp.

Stromata hypophyllous, circular, about 1 mm. diameter, 160μ thick, placentiform, elevated, papillate, immersed in the mesophyll and covered by the epidermis; loculi oval or sub-globose, crowded, $66-90 \times 50-66 \mu$. Asci clavate, four-, or eight-spored, spores biseriata, $48-60 \times 7-13 \mu$; no paraphyses. Spores greenish-hyaline, narrow-oval or fusoid, sometimes curved, ends obtuse, one septate, septum central or excentric, $18-24 \times 4-5 \mu$.

On leaves of *Strychnos Benthani* Clarke, Hakgala, April, 1917 ; No. 5266 in Herb. Peradeniya.

Phæodothis Isachnes n. sp.

Stroma immersed, oblong-oval, 0·4–0·6 mm. diameter, dull black, visible on both sides of the leaf ; loculi up to six, depressed globose, up to 200 μ diameter ; ostiola prominent on the lower surface. Asci narrow-clavate, shortly pedicellate, eight-spored, spores biseriate, $80 \times 9 \mu$; paraphyses linear. Spores olive-brown, narrow-oval or oblong-oval, ends obtuse, one septate, constricted at the septum, the upper cell slightly the broader, $10\text{--}17 \times 5\text{--}6 \mu$.

On leaves of *Isachne Kunthiana* W. & A., Haputale, November, 1917 ; No. 5884 in Herb. Peradeniya.

Homostegia Symploci Rac.

On *Symplocos elegans* Thw., Hakgala, April, 1917 ; No. 5232 in Herb. Peradeniya. On *Symplocos latiflora* Clarke, Hakgala, April, 1919 ; No. 6005 in Herb. Peradeniya.

Microthyriaceæ.

Seynesia Ipomææ Syd.

On *Ipomæa obscura* Ker, Badulla, November, 1917 ; No. 5681 in Herb. Peradeniya.

Calothyrium reticulatum n. sp.

Perithecia epiphyllous, scattered, black, scutate, 0·2 mm. diameter, even, merging into a thin membranous film, which forms large patches somewhat fuscous at the margin ; cover of perithecium obscurely radial, with a wide-meshed network of hyphæ in addition, opaque round the ostiolum, elsewhere blackish-brown ; ostiolum 16 μ diameter. Film hyaline, with a wide network of sparse, pale fuscous mycelium composed of flexuose, equal hyphæ, about 3 μ diameter, without hyphopodia. Asci broadly clavate, thick-walled, eight-spored, $40 \times 10 \mu$; no paraphyses. Spores greenish-hyaline, fusoid or narrow-oval, one-septate, $11\text{--}12 \times 3\cdot5\text{--}4 \mu$.

On *Aporosa lanceolata* Thw., Delgoda, March 24, 1919 ; No. 6158 in Herb. Peradeniya.

Micropeltella confluens n. sp.

Perithecia scattered, circular, up to 0.2 mm. diameter, scutate, dull black, confluent with a thin hyaline amorphous sheet which extends over almost the whole leaf: cover netted, black-brown, becoming yellow-brown towards the margin and merging into the hyaline sheet; ostiolum circular, minute. Asci ovate, eight-spored, $25 \times 12 \mu$; paraphyses not seen. Spores subfusoid, ends rounded, hyaline, three septate, $9-12 \times 3 \mu$.

On leaves of *Pavetta natalensis* Sond., Peradeniya, November, 1917; No. 5404 in Herb. Peradeniya.

Amazonia peregrina Syd.

Perithecia hypophyllous, scattered or clustered, superficial, circular, scutate, elevated in the centre, up to 0.6 mm. diameter, black; cover membranous, not ostiolate, splitting radially, opaque in the centre, transparent fuscous towards the margin, composed of radial, branching hyphæ, 6μ diameter separating at the margin into bundles of three or four, with interspaces partly filled by hyphopodia. Hyphopodia two-celled, terminal cell globose, up to 9μ diameter, basal cell short. Asci clavate or ovoid, at first thick-walled, soon diffuent, two-spored, $60 \times 20 \mu$. Paraphyses linear, diffuent. Spores black-brown, cylindric, or oblong-oval, ends rounded, four septate, deeply constricted, $36-40 \times 16-18 \mu$. Free mycelium represented only by a narrow fringe round the perithecium.

On *Mæsa indica* A. DC., Hakgala, April, 1919; No. 5974 in Herb. Peradeniya.

DISCOMYCETÆ.

Phæoglossum, gen. nov. *Geoglossaceæ*.

Clava stalked, expanding above into an ovoid or sub-hemispherical head, which bears a continuous palisade layer of asci and paraphyses. Asci furnished with a pore. Spores continuous, oval, fuscous.

Phæoglossum zeylanicum n. sp.

Stalk up to 1 cm. high, 0.15 mm. diameter, simple, occasionally forked, smooth, shining, black, white internally. Head ovoid or sub-hemispherical, merging gradually into the

stalk or truncate at the base, black, smooth, 0·35–0·4 mm. high, 0·2–0·4 mm. diameter, white internally, with an outer layer of asci and paraphyses about 65 μ deep, which is fuscous in section. Asci cylindric, shortly pedicellate, furnished with an apical pore, eight-spored, spores obliquely uniseriate, about $40 \times 4 \mu$. Spores oblong-oval, ends rounded, greenish-olivaceous in mass, fuscous, $7-9 \times 3-4 \mu$. Extruded spores adhere to the head. Paraphyses linear, hyaline, pale olivaceous in mass, fused above into a continuous layer.

Conidial stage stilboid, white ; stalk 0·4 mm. high, 0·05 mm. diameter ; head sub-globose, 0·15 mm. diameter. Conidia hyaline, oval, sometimes slightly pointed at one end, $7-9 \times 3-4 \mu$.

On decaying *Loranthus* fruits, Hakgala, May, 1912 ; No. 3632 in Herb. Peradeniya.

Elsinoe Canavaliæ Rac.

On *Canavalia ensiformis* DC., Peradeniya, May, 1918 ; No. 5696 in Herb. Peradeniya.

DEUTEROMYCETÆ.

Sphæropsidaceæ.

Phyllosticta Mayilæ n. sp.

Spots irregular, red-brown, usually extending from the margin of the leaf. Pycnidia epiphyllous, immersed, black, membranous, 80–100 μ diameter ; ostiolum about 10 μ diameter. Spores hyaline, continuous, broadly oval, $8-11 \times 4-6 \mu$.

On leaves of *Bauhinia* sp. (indet.), Peradeniya, August, 1917 ; No. 5335 in Herb. Peradeniya.

Phyllosticta disciformis Penz.

On leaves of *Citrus Aurantium* L. var. *vulgaris* Risso, Hakgala, April, 1917 ; No. 5111. On leaves of *Citrus decumana* Willd., Hakgala, April, 1917 ; No. 5113 in Herb. Peradeniya.

Phyllosticta Physaleos Sacc.

On leaves of *Physalis peruviana* L., Hakgala, April, 1917 ; No. 5157 in Herb. Peradeniya.

Phyllosticta Usteri Speg.

On leaves of *Coffea robusta* Chev., Panadure, December, 1918; No. 5822 in Herb. Peradeniya.

Phoma Durionis n. sp.

Pycnidia subepidermal, slightly prominent, scattered, black, about 200 μ diameter, outline somewhat irregular; wall blackish-brown, black at the margin; ostiolum large, circular, 40 μ diameter, not projecting. Spores fusoid or narrow-oval, ends acute, $7-10 \times 1.5-2 \mu$, extruded in a thick white tendril; basidia short, simple, slender, up to 16 μ long.

On fruits of *Durio zibethinus* L., Peradeniya, August, 1918; No. 5784 in Herb. Peradeniya.

Phoma Justiciæ n. sp.

Spots white, circular, up to 2 mm. diameter, with a raised purple margin. Pycnidia immersed, epiphyllous, 100-120 μ diameter, ostiola not projecting. Spores hyaline, continuous, oval or oblong oval, $3-4 \times 1.5 \mu$.

On leaves of *Justicia Betonica* L., Peradeniya, February, 1917; No. 5045 in Herb. Peradeniya.

Phoma aterrima n. sp.

Pycnidia immersed, prominent, crowded, black, about 0.5 mm. diameter; ostiolum 20 μ diameter. Spores oblong-oval, ends obtuse, sometimes two-guttulate, $6-9 \times 1.5 \mu$, extruded in a white tendril.

On fruits of *Hevea brasiliensis* Muell.-Arg., in the laboratory, Peradeniya; No. 4816 in Herb. Peradeniya.

Phomopsis Phaseoli n. sp.

Pycnidia immersed, scattered, black, thin-walled, lenticular, 0.25 mm. diameter. Spores hyaline, narrow-oval or oblong-oval, $3-6 \times 1.5-2 \mu$, or linear, uncinata, 14-16 μ long.

On dead stems of seedling *Phaseolus Max* L., Peradeniya, July, 1918; No. 5765 in Herb. Peradeniya.

Phomopsis Coccoes n. sp.

Pycnidia black, immersed, irregularly oval or linear, incompletely chambered. Spores hyaline, narrow-oval, ends subacute, $7-9 \times 2-2.5 \mu$, or linear, curved or uncinata, tapering to the curved end, $18-25 \times 1 \mu$.

On decaying coconut fruits, Kurunegala, July, 1917 ; No. 5254 in Herb. Peradeniya.

Macrophoma Mantegazziana (Penz.) Berl. & Vogl.

On leaves of *Citrus Aurantium* var *vulgaris* Risso, Hakgala, April, 1917 ; No. 5111 in Herb. Peradeniya.

Pyrenochæta nipponica Hara.

On leaves of *Oryza sativa* L., Kelaniya, September, 1919 ; No. 6144 in Herb. Peradeniya.

Vermicularia Dematium (Pers.) Fr.

On seedling *Hevea* stems, Bollagalla, November, 1905 ; No. 2225. On dead stems of *Crotalaria Saltiana* Andr., Ratnapura, October, 1908 ; No. 2665. On dead stems of *Ricinus communis* L., Peradeniya, November, 1913 ; No. 3905. On *Coffea arabica* L., attacked by *Hemileia*, Peradeniya, January, 1912 ; No. 3290 in Herb. Peradeniya.

Vermicularia Capsiei Syd.

On fruits of *Capsicum* (cult.), Anuradhapura, April, 1917 ; No. 5315. On fruits of *Lycopersicum esculentum* Mill., Peradeniya, January, 1918 ; No. 5464 in Herb. Peradeniya.

Cytosporella discoidea n. sp.

Stroma circular, about 0·8 mm. diameter, erumpent, black, flattened, surface irregular, about 0·2 mm. thick. Pyrenidia totally immersed or slightly projecting, crowded, opening separately. Basidia up to 30 μ long, branched ; spores hyaline, narrow-oval or subcylindric, ends rounded, $3-4 \times 1 \mu$.

On dead twigs of *Hevea brasiliensis* Muell.-Arg., Gangaruwa, February, 1917 ; No. 5075 in Herb. Peradeniya.

Cytospora palmicola B. & C.

On fruits of *Cocos nucifera* L., Kurunegala, July, 1917 ; No. 5250 in Herb. Peradeniya.

Ascochyta Lobeliæ n. sp.

Spots irregularly oval or circular, brownish-white, dry, often confluent, sometimes splitting, with a broad purple margin. Pyrenidia epiphyllous, scattered, circular, up to 120 μ diameter, or oval, $120 \times 180 \mu$; wall membranous. Spores narrow-oval or sub-fusoid, one septate, constricted at the septum, hyaline, $11-15 \times 4 \mu$, occasionally $20 \times 6 \mu$.

On leaves of *Lobelia nicotianæfolia* Heyne, Nuwara Eliya, December, 1917; No. 5624 in Herb. Peradeniya.

Ascochyta Cyphomandræ n. sp.

Spots subcircular, up to 2 cm. diameter, black becoming gray, often concentrically ridged, the centre cracking and falling out. Pycnidia immersed, scattered, epiphyllous, 0.3 mm. diameter, black, brown by transmitted light, ostiolate. Spores oblong, ends rounded, hyaline, one septate, sometimes slightly constricted, $8-10 \times 3-3.5 \mu$.

On leaves of *Cyphomandra betacea* Send., Hakgala, April, 1917; No. 5165 in Herb. Peradeniya.

Hendersonia obesa n. sp.

Spots circular, gray or brownish-gray, with a broad reddish-brown margin, becoming confluent. Pycnidia immersed, scattered, epiphyllous, pale brown, black round the ostiolum, 180 μ diameter: wall parenchymatous; ostiolum 30 μ diameter. Spores ovate or oblong-oval, three to four septate, usually constricted at the septa, sometimes deeply constricted at the median septum, fuscous, $32-42 \times 18-26 \mu$: basidia short, stout.

On leaves of *Erythrina velutina* Willd., Peradeniya, August, 1917; No. 5829 in Herb. Peradeniya.

Hendersonia rosicola n. sp.

Pycnidia immersed, not erumpent, scattered, black, about 0.25 mm. diameter, ostiolum projecting. Spores narrow-oval, fuliginous, two to four septate, not constricted, $17-22 \times 6-8 \mu$.

On twigs of cultivated rose, Badulla, November, 1917; No. 5408 in Herb. Peradeniya.

Hendersonia Heveæ n. sp.

Pycnidia subepidermal, elevating and cracking the epidermis, lenticular, black, up to 250 μ diameter; wall parenchymatous; ostiolum 30 μ diameter, not elevated. Spores oblong or subfusoid, ends rounded, straight or slightly curved, three or four septate, not constricted, fuscous, $18-36 \times 6-8 \mu$.

On stems and fruits of *Hevea brasiliensis* Muell.-Arg., forming a pseudostroma on the fruits, Edurugalla, June, 1918; No. 5745 in Herb. Peradeniya.

Septoria graminum Desm.

On *Poa annua* L., Hakgala, April, 1917 ; No. 5161 in Herb. Peradeniya.

*Leptostromataceæ.***Asterostomella Aberiæ** n. sp.

Chiefly epiphyllous. Mycelium superficial, stout, 5 μ diameter, regular, not constricted ; hyphopodia one septate, straight or curved, up to 16 μ long, with a basal cell 5 μ broad, 3 μ high, and an ovoid or cylindric apical cell about 8 μ diameter, attenuated towards the tip. Pycnidia scutate, cover radial, splitting radially and disappearing, except at the margin, fuscous, 55–70 μ diameter. Spores pyriform, or more usually turbinate, rounded above, contracted shortly below the apex with well-defined angles and tapering to the base, obtuse or acute at the base, black-brown, with a transverse hyaline band, $14-17 \times 9-10 \mu$.

On *Aberia Gardneri* Clos., Peradeniya, June, 1919 ; No. 6002 in Herb. Peradeniya.

*Excipulaceæ.***Phæodiscula Cudranix** n. sp.

Spots yellow. Pycnidia epiphyllous, clustered, subepidermal, flat, circular, up to 2.5 mm. diameter, 60 μ thick, upper and lower layers black ; upper layer splitting off. Basidia short, 12 μ long ; spores pale fuliginous, oval or oblong-oval, ends rounded, $3-5 \times 2-2.5 \mu$.

On leaves of *Cudrania javanensis* Trec., Hakgala, April 1917 ; No. 5081 in Herb. Peradeniya. Perhaps identical with *Hymenopsis Cudranix* Masee (not seen).

*Melanconiaceæ.***Gleosporium Holstii** P. Henn.

On leaves of *Tabernæmontana dichotoma* Roxb., Peradeniya, June, 1918 ; No. 5883 in Herb. Peradeniya.

Gleosporium Litseæ n. sp.

Spots circular, brownish-gray, about 1.5 cm. diameter. Acervuli hypophyllous, crumpent, scattered, pale brown,

subtranslucent, 0.15 mm. diameter. Conidia narrow-oval or subcylindric, $5-8 \times 2 \mu$; conidiophores simple, short, up to 16μ long.

On leaves of *Litsea* sp., Hakgala, April, 1919; No. 5994 in Herb. Peradeniya.

Glæosporium phomoides Sacc.

On fruits of *Lycopersicum esculentum* Mill., Colombo, November, 1917; No. 5415 in Herb. Peradeniya.

Glæosporium Impatientis n. sp.

Acervuli amber-coloured, up to 0.3 mm. diameter; conidia cylindric, ends rounded, $14-18 \times 3.5-4.5 \mu$.

Causing a soft rot on stems of cultivated *Impatiens Balsamina* L., Madola, September, 1919; No. 6121 in Herb. Peradeniya.

Glæosporium cocophilum Wakef.

On coconut fruits, Kurunegala, July, 1917; No. 5252 in Herb. Peradeniya.

Glæosporium cryptum n. sp.

Acervuli subepidermal, raising the epidermis in oval pulvinate elevations, up to 0.6×0.3 mm., epidermis ultimately splitting; acervuli often confluent. Conidia cylindric or narrow-oval, ends obtuse, $18-25 \times 4-5 \mu$.

On decaying fruits of *Cocos nucifera* L., Kurunegala, April 1917; No. 5255 in Herb. Peradeniya.

Colletotrichum Lindemuthianum (Sacc. & Magnus) Briosi & Cav.

On *Phaseolus* sp. (cult.), Nuwara Eliya, June 30, 1919; No. 6018 in Herb. Peradeniya.

Colletotrichum Erythrinae Koord.

On leaves of *Erythrina lithosperma* Bl., Balangoda, November, 1918; No. 5819 in Herb. Peradeniya.

Colletotrichum glæosporoides Penz.

On leaves and shoots of *Citrus decumana* Willd., Hakgala, April, 1917; No. 5162 in Herb. Peradeniya.

Colletotrichum paucisetum n. sp.

Acervuli white, circular, up to 0·3 mm. diameter ; conidia hyaline, cylindric, ends rounded, $13-16 \times 4-5 \mu$: setæ scanty, black-brown, septate, tapering upwards, obtuse, $48-64 \times 5 \mu$.

On decaying fruits of *Cocos nucifera* L., Kurunegala, July, 1917 ; No. 5256 in Herb. Peradeniya.

Septoglœum Dumasiae n. sp.

Spots brownish, indefinite, Acervuli hypophyllous, gregarious, pale or dark brown, pulvinate, translucent, up to 0·2 mm. diameter, surrounded by the ruptured epidermis. Spores cylindric, apex rounded, base subacute, hyaline, up to four septate, $18-32 \times 2\cdot5-3 \mu$.

On leaves of *Dumasia villosa* DC., Hakgala, April, 1919 ; No. 5982 in Herb. Peradeniya.

Pestalozzia Mangiferæ P. Henn.

On leaves of *Mangifera indica* L., Peradeniya, October, 1919 ; No. 6128 in Herb. Peradeniya.

*Mucedinaceæ.***Oidium.**

On *Urena lobata* L., Haputale, June, 1917.

On *Cassia mimosoides* L., Diyanilla, September, 1918.

On *Passiflora stipulata* Aubl., Haputale, November, 1917.

On *Sechium edule* Sw., Hakgala, April, 1919.

On *Coriandrum sativum* L., Harasbedde, July, 1918.

On *Peucedanum graveolens* B. & H., Peradeniya, August, 1919.

On *Lycopersicum esculentum* Mill., Diyanilla, September, 1918.

On *Solanum ciliatum* Lam., Peradeniya, September, 1917.

On *Cyphomandra betacea* Send., Hakgala, April, 1919.

On *Stachytarpheta indica* Vahl, Higgoda, February, 1918.

On *Euphorbia Rothiana* Spr., Bandarawela, August, 1916.

On *Acalypha indica* L., Peradeniya, December, 1918.

On *Phyllanthus Niruri* L., Peradeniya, December, 1918.

On *Mirabilis Jalapa* L., Peradeniya, August, 1919.

Acremonium roseum n. sp.

Tufts circular or elongated, arising from cracks in the bark, up to 2 mm. diameter, pink, lax, composed of erect or suberect simple conidiophores; conidiophores hyaline, septate, up to 0.5 mm. long, 8–10 μ diameter, sometimes inflated below the septa, not inflated at the apex; conidia apical, solitary, oval, subacuminatè, base truncate, thick-walled, wall hyaline, contents pinkish, $32\text{--}42 \times 16\text{--}20 \mu$.

On dead branches, Peradeniya, January, 1918; No. 5523 in Herb. Peradeniya.

The apex of the conidiophore is not toothed, the conidium being attached over the whole breadth. The conidia grow out from the apex, leaving a distinct collar, and the upper segments of the conidiophore are surrounded by a collar at their bases. Sometimes the conidium does not become detached, but grows on at the apex as a conidiophore, leaving the conidium intercalary.

Ovularia Veronicæ (Fuck.) Sacc.

On *Veronica polita* Fr., Hakgala, April, 1917; No. 5076 in Herb. Peradeniya.

Verticillium niveum n. sp.

Repent hyphæ hyaline, slender. Conidiophores up to 75 μ high, 2.5 μ diameter below, attenuated upwards; lateral branches whorled, 8–12 μ long; conidia in globose heads up to 16 μ diameter, hyaline, continuous, narrow-oval or sub-cylindric, $5\text{--}7 \times 1.5\text{--}2 \mu$.

Forming extensive patches on the under surface of the leaf of *Adenostemma viscosum* Forst., Hakgala, April, 1917; No. 5229 in Herb. Peradeniya.

Trichothecium parasiticum n. sp.

Tufts circular, up to 0.5 mm. diameter, pink with a white margin, lax; conidiophores usually short, simple, flexuose above; conidia terminal, hyaline, narrow-oval or fusoid, minutely warted, ultimately one-septate, $8\text{--}16 \times 3\text{--}5 \mu$.

On *Uredo sori* of *Melampsora epitea* Thuem., on *Salix tetrasperma* Roxb., Hakgala, April, 1917; No. 5228 in Herb. Peradeniya.

***Monacrosporium ovatum* n. sp.**

Mycelium about 5 μ diameter, hyaline : conidiophores erect, simple, septate, attenuated upwards, up to 16 μ long ; conidia apical, solitary, hyaline, ovato-fusoid, attenuated below, apex obtuse, subacuminate, finally three-septate, with two septa towards the base and one near the apex, $26-36 \times 12-16 \mu$.

On decaying leaf base of *Cocos nucifera* L., Kurunegala, September, 1917 ; No. 5373 in Herb. Peradeniya.

*Dematiaceæ.****Trichoeladium olivaceum* n. sp.**

Tufts purple-black, scattered, circular, 0.5-1 mm. diameter, pulverulent. Hyphæ pale yellowish-olive, 4 μ diameter, regular, branched, lax, thin-walled, strongly encrusted. Conidia terminal, catenulate, black-brown, oblong-oval or cylindric, ends rounded, strongly warted, one-septate, constricted at the septum, $16-18 \times 9-12 \mu$; a few one-celled, spherical, 10 μ diameter.

On decaying leaves of *Furcraea gigantea* Vent., Hakgala, December, 1917 ; No. 5626 in Herb. Peradeniya.

***Septonema exaltatum* n. sp.**

Forming black patches. Conidiophores equal, septate, purple-brown, 30-90 μ high, 6 μ diameter ; conidia catenulate, blackish-brown, fusoid or cylindric, apex rounded or truncate, 3 to 7 septate, not constricted, $26-36 \times 6 \mu$.

On dead branches of *Hevea brasiliensis* Muell.-Arg., Peradeniya, February, 1917 ; No. 5005 in Herb. Peradeniya.

***Septonema hormiscioides* n. sp.**

Forming effused, black, velvety patches. Repent hyphæ brown, 3 μ diameter. Conidiophores almost absent ; conidia forming branching chains up to 90 μ high. Conidia usually 3 septate, occasionally 2 septate, oval or cylindric, ends rounded, dark brown or blackish-brown, constricted at the septa, $12-16 \times 4-5 \mu$; some one-celled, oval $5-6 \times 3-4 \mu$.

On dead herbaceous stems, Hakgala, April, 1917 ; No. 5343 in Herb. Peradeniya.

Heterosporium Wikstrœmiæ n. sp.

Tufts large, hypophyllous, clustered, in large blackish-olivaceous patches, causing yellow or yellowish-green spots on the upper surface of the leaf coinciding with the area covered by the fungus on the lower. Conidiophores fasciculate, geniculate, up to 200 μ high, 4 μ diameter, septate, olivaceous. Conidia cylindric, equal or slightly attenuated upwards, ends obtuse, straight or irregularly bent, 4-9 septate, closely septate, olivaceous, verrucose, $30-58 \times 4-5 \mu$.

On leaves of *Wikstrœmia viridiflora* Meisn., Peradeniya, February, 1919; No. 5878 in Herb. Peradeniya.

Helminthosporium turcicum Pass.

On *Zea Mais* L., Diyanila Kaele, October, 1919.

Helminthosporium extensum n. sp.

Forming black patches, several inches long. Conidiophores up to 1.5 mm. high, 5 μ diameter, regular, sometimes nodulose towards the apex, sometimes forked above. Conidia clavate, ends obtuse, attenuated below, outline somewhat irregular, not constricted, 4 to 12 septate, pale fuliginous, $40-84 \times 8-9 \mu$.

On dead stems of *Erythrina lithosperma* Bl., Talawakele, July, 1917; No. 5243 in Herb. Peradeniya.

Helminthosporium ampullaceum n. sp.

Conidiophores scattered, or in groups of two or three, up to 0.5 mm. high, 12 μ diameter, equal, septate, black-brown to yellow-brown, with pulvinate spore attachments towards the apex. Conidia acrogenous, obclavate, $80-116 \times 22-26 \mu$, attenuated in the upper third to 5 μ diameter, 6 to 9 septate, not constricted, yellow-brown, paler towards the apex, wall and septa thin, apex clothed with a translucent mass about 3 μ thick for a length of about 20 μ ; base of the spore and apex of the conidiophore strongly thickened and opaque, the basal cell of the spore becoming hyaline in glycerine.

On dead wood, Hakgala, April, 1917; No. 5344 in Herb. Peradeniya.

Macrosporium Macalpineanum Sacc. & Syd.

On leaves of cultivated Pelargonium, Bandarawela, November, 1918; No. 5815 in Herb. Peradeniya.

Cercospora cruenta Sacc.

On *Phaseolus* sp., Nuwara Eliya, June, 1919 ; No. 6019 in Herb. Peradeniya.

Cercospora Hibisci Tracy & Earle.

On leaves of *Hibiscus esculentus* L., Puwakpitiya, May, 1918 ; No. 5715 in Herb. Peradeniya.

Cercospora Cordobensis Speg.

On *Argyrea populifolia* Choisy., Haputale, November, 1917 ; No. 5688 in Herb. Peradeniya.

Cercospora rosicola Pass.

On cultivated rose, Colombo, August, 1917 ; No. 5273 in Herb. Peradeniya.

Cercospora Henningsii Allesch.

On leaves of *Manihot utilissima* Pohl, Peradeniya, June, 1918 ; No. 5879 in Herb. Peradeniya.

Cercospora Musæ Zimm.

On *Musa paradisiaca* L., Peradeniya, July, 1919 ; No. 6071 in Herb. Peradeniya.

Cercospora Woodfordiæ n. sp.

Spots small, circular, up to 2 mm. diameter, white with a purple margin on the upper surface, olivaceous below. Acervuli epiphyllous, black, 80–100 μ diameter ; conidiophores crowded, almost regular, fuscous, 66 μ long, 3 μ diameter ; conidia cylindric, ends obtuse, multiseptate, pale olivaceous or almost hyaline, 60–70 $\times$ 3 μ .

On leaves of *Woodfordia floribunda* Sal., Peradeniya, January, 1918 ; No. 5757 in Herb. Peradeniya.

*Stilbaceæ.***Stilbum luteocinctum** n. sp.

Synnemata up to 0.5 mm. high ; stalk dark brown, about 120 μ diameter ; head dark brown to blackish, flattened globose, 250 μ diameter ; arising from a conical, or pulvinate, loose, irregularly nodular, lemon-yellow basal mass, up to 0.5 mm. diameter, of interwoven hyphæ and crystals. Conidiophores simple, clavate. Conidia obovate, continuous, pale yellow, thick-walled, 8–12 $\times$ 5–6 μ .

On dead wood, Peradeniya, October, 1919 ; No. 6125 in Herb. Peradeniya.

? Stilbum Durionis n. sp.

Synnemata up to 0·6 mm. high, 0·2 mm. diameter, columnar, inflated at the apex, yellowish, translucent, gelatinous; stalk short, the upper part of the column consisting of a mass of conidia; conidiophores slender, conidia terminal. Conidia at first fusoid, truncate below, rounded above, becoming sub-cylindric, hyaline, continuous, $8-20 \times 3-4 \mu$.

On decaying fruits of *Durio zibethinus* L., Peradeniya, August, 1918; No. 5785 in Herb. Peradeniya.

Didymostilbe Coffeæ P. Henn.

On twigs of *Camellia theifera* Dyer, Katandola, August, 1917; No. 5339 in Herb. Peradeniya.

Helicostilbe simplex n. sp.

Hypophyllous. Synnemata scattered, up to 0·8 mm. high, 30μ diameter, black, equal, slightly bulbous at the base, each arising from a small attachment disc of coalescent hyphæ; stalk villous with short free hyphal tips, and terminating at the apex in very short free conidiophores. Conidia apical, solitary, fuliginous, straight or slightly curved, 3 to 4 septate, uncinat, the longer arm $14-20 \times 4 \mu$, the shorter $7-8 \times 4 \mu$ and closely applied to the longer.

On the under surface of living leaves of *Daphniphyllum glaucescens* Bl., Hakgala, April, 1917; No. 5263 in Herb. Peradeniya.

*Tuberculariaceæ.***Tubercularia Cansjeræ** n. sp.

Spots circular, up to 1 cm. diameter, yellowish-white, becoming membranous and translucent, with a narrow, thickened margin. Sporodochia hypophyllous, circular, pulvinate, moderately compact, up to 0·4 mm. diameter, clustered, brownish-pink; conidiophores short, up to 25μ high, $2-3 \mu$ diameter, branched dichotomously, rather lax, not forming a compact basal tissue; conidia narrow-oval, continuous, hyaline, ends obtuse, $3-5 \times 1\cdot5-2 \mu$.

On leaves of *Cansjera Rheedii* Gmel., with an immature Pyrenomycete (? *Physalospora*), Henaratgoda, January, 1919; No. 6150 in Herb. Peradeniya.

Tubercularia nigro-maculans n. sp.

Spots small, circular, 2–3 mm. diameter, depressed, upper surface black surrounded by a yellow-green zone, lower surface black with a gray centre. Sporodochia amphigenous, chiefly hypophyllous, minute, erumpent, crowded in clusters up to 0.4 mm. diameter, pale pinkish, parenchymatous below. Conidia oval, hyaline, $4-5 \times 2-2.5 \mu$; basidia simple, fusoid, $8 \times 3 \mu$.

On leaves of *Ficus Tsjakela* Burm., which it defoliates, Peradeniya, April, 1918; No. 5692 in Herb. Peradeniya.

Tuberculina viridis n. sp.

Acervuli black, pulvinate; conidia spherical, blackish-green with a large central gutta, 14–18 μ diameter.

On a *Puccinia* on *Ischæmum ciliare* Retz, Hakgala, April, 1917; No. 5267 in Herb. Peradeniya.

Epidochium Xylariæ v. Hohnel var. *microspora*.

Acervuli hemispherical, about 0.2 mm. diameter, black, with a white covering of spores; centre parenchymatous over a small area, the greater part of the stroma composed of radial, stout, branching, compactly arranged, fuscous hyphæ. Conidiophores fuscous, 4 μ diameter, slightly inflated at the apex or sometimes lobed. Conidia acrogenous, hyaline, narrow-oval, ends acute, $4-6 \times 1.5-2 \mu$.

On a *Xylaria*, Hakgala, April, 1919; No. 5950 in Herb. Peradeniya.

Cerebella Andropogonis Ces.

On *Andropogon pertusus* Willd., Peradeniya, April, 1917; No. 5317 in Herb. Peradeniya.

Cerebella Sorghi Tracy & Earle.

On *Sorghum vulgare* Pers., Harasbedda, April, 1919; No. 5975 in Herb. Peradeniya.

Cerebella Cynodontis Syd.

Stromata ovoid, up to 2 mm. long, 1.5 mm. diameter, cerebriform, black. Conidia in permanent clusters usually of four, 12–16 μ diameter; individual conidia blackish-olive, almost smooth, 8–10 μ diameter.

On the inflorescence of *Cynodon Dactylon* Pers., Anuradhapura, December, 1919; No. 6156 in Herb. Peradeniya.

Interim Notes on Entomogenous Fungi.

BY

T. PETCH, B.A., B.Sc.

IN continuation of previous communications on the fungi parasitic on scale insects, a paper on the species of *Torrubiella* on those hosts has been completed, and will be published as soon as circumstances permit. The following undescribed species have been found among the material available, much of which I owe to the continued generosity of Professor Thaxter :—

Torrubiella tenuis Petch, n. sp. Stroma pulvinate, or almost plane, up to 1.5 mm. diameter, white, tomentose, rather loose internally, sometimes surrounded by a broad, white, fibrillose margin or hypothallus.

Perithecia usually produced on the thicker part of the stroma, sometimes on the margin or hypothallus, sometimes occurring singly on scales which do not bear any stroma, except a slight web of hyphæ at the base of the perithecium : scattered or clustered, elongated flask-shaped or elongated conoid, 0.65–0.9 mm. high, 0.2–0.25 diameter below, pale amber to pale yellow-brown, pale yellow or yellow-brown by transmitted light, subtranslucent, clothed with hyphæ up to two-thirds their height, or almost glabrous ; asci long, cylindrical, capitate, eight-spored, 7 μ . diameter ; spores filiform, as long as the ascus, septate, dividing into cylindrical part-spores, 3–6 $\times$ 1 μ .

Ceylon ; on *Aspidiotus destructor* on a jungle tree, Pundaluyoia, coll. E. E. Green, 1899 (Parkin, type 2, p. 19) ; on a black Aleyrodid on *Sarcococca pruniformis* Lindl., Hakgala, May, 1912 ; on a scale on *Hedyotis Lessertiana* Arn., Hakgala, January, 1914 ; on *Aleyrodes* on *Lasianthus Walkerianus* Wight and *Psychotria elongata* Hk. f., Hakgala, January, 1914.

Annals of the Royal Botanic Gardens, Peradeniya, Vol. VII. Part IV., June, 1922.

This is the species which Parkin compared to *Torrubiella tomentosa* Pat. An examination of perithecia of the latter species, kindly furnished by Professor Patouillard, shows that it is distinct.

Torrubiella sublintea Petch, n. sp. Stroma circular, up to 3 mm. diameter, compact, pulvinate in the centre, with a broad margin, white, margin somewhat floccose, centre acquiring a matted surface which becomes a more or less glabrous wrinkled sheet.

Perithecia situated round the thickened centre, singly, or more usually in groups, tomentose up to two-thirds their height, or clothed with mycelium which forms a common covering to two or three perithecia and acquires a glabrous external layer, elongated conoid, slightly attenuated above, 0.75 mm. high, 0.33 mm. diameter below, brownish-yellow, darker brown at the apex, subtranslucent, by transmitted light pale yellow to brownish-yellow, slightly brown towards the apex; asci long, cylindrical, capitate, eight-spored, 6-8 μ . diameter; spores filiform, as long as the ascus, septate, dividing into cylindrical part-spores, $3-6 \times 1.25 \mu$.

Conidia on the stroma or on the perithecia, arising laterally from regular simple hyphæ, either fusoid, three-septate, ends acute, but not produced, $18-24 \times 4 \mu$, or five-septate, ends strongly attenuated and slightly curved, $36-46 \times 3-4 \mu$, or seven-septate, falcate, ends equally curved and attenuated, $48 \times 4 \mu$.

Chili; on an Aleyrodid on an undetermined leaf, Corral, December, 1905, coll. et comm. R. Thaxter.

Torrubiella barda Petch, n. sp. Stroma up to 3 mm. diameter, compact, pulvinate, lacunose, sometimes with a broad thin hypothallus, orange-yellow, egg-yellow, or becoming whitish, more or less tomentose, but with the surface layer matted and tending to become membranous and glabrous.

Perithecia round the base of the pulvinate part of the stroma, solitary or clustered, usually surrounded by a web of hyphæ of the same colour as the stroma, so that only the

ostiola project. Isolated perithecia conoid, yellow, with an outer coat of interwoven yellow hyphæ, 0.1 mm. thick, extending nearly to the apex which is red-brown and conoid; after removal of the tomentose coat, the perithecia are conoid, 0.75 mm. high, 0.35 mm. diameter, suddenly expanding above into a thickened capitate apex; wall of perithecium thick; by transmitted light the wall of the perithecium is yellow and the thickened apex orange or reddish-yellow. Asci long, cylindrical, capitate, eight-spored, 6-7 μ . diameter; part-spores cylindric, becoming somewhat narrow-oval with obtuse ends, $4-7 \times 1.5 \mu$.

Chili; on an Aleurodid on an undetermined leaf, Corral, December, 1905, coll. et comm. R. Thaxter.

With regard to the previously-described species of *Torrubiella*, *T. brunnea* v. Keissler, as far as can be determined from the description, is most probably identical with *T. luteorostrata* Zimm. *T. tomentosa* Pat., originally recorded on an undetermined insect, which it was suggested might be a spider, is, Professor Patouillard informs me, on a scale insect.

The species of *Torrubiella* at present known to be parasitic on scale insects are:—

T. rubra Pat. & Lagh., Ecuador; Chili.

T. luteorostrata Zimm., Java; Ceylon; Seychelles; Upolu.

T. tenuis Petch, Ceylon.

T. sublintea Petch, Chili.

T. tomentosa Pat., Ecuador.

T. barda Petch, Chili.

T. Lecanii Johnst., Cuba.

Among a collection of scale insect fungi from Chili kindly submitted to me by Professor Thaxter is an *Aschersonia*, which does not agree with any of the species hitherto described. It may be known as *Aschersonia intermedia*.

Aschersonia intermedia Petch, n. sp. Stromata discoid, contracted at the base, up to 1.4 diameter, 0.4 mm. high,

sometimes horseshoe shaped, usually umbilicate in the centre, waxy-looking, minutely pruinose, pale yellow-brown or dark amber, surrounded by a paler fibrillose hypóthallus, 0·1–0·2 mm. wide; ostiola inconspicuous, circularly arranged, radially elongated, irregularly oval, up to $0\cdot15 \times 0\cdot1$ mm., or sometimes labyrinthiform, pale yellow with a darker edge; pycnidia radially elongated, in transverse section oval at first, then opening widely, slightly convoluted at the base, up to 160 μ deep; pycnosporos broadly fusoid and sometimes inequilateral, or subcylindric, $5\text{--}7 \times 1\cdot5$ μ ; paraphyses linear, 60–160 μ long.

On an Aleyrodid on an undetermined leaf, Corral, Chili, December, 1905, coll. R. Thaxter.

At first sight this appears to belong to the discoid group, resembling in shape *A. viridans* or *A. samænsis*. Its pycnidia, however, are not regularly globose as in those species, but approach the widely-open convoluted pycnidia of *A. Aleyrodidis*, *A. placenta*, &c. It falls into the same group as *A. Tamurai* and *A. taitensis*.

Specimens of *Aschersonia brunnea*, collected by Mr. A. T. Speare on *Ilex Cassine*, Winter Park, Florida, July, 1920, extend the known range of that species, and furnish additional information concerning its colour. It was described and figured as dark purple-brown from the only specimens known, viz., those in Herb. Kew collected in Brazil by Spruce. These recent specimens are yellow-brown, sometimes with a green tinge, more nearly resembling *Aschersonia badia*. It is possible that the darker colour of the old herbarium specimens may be due to the action of some preservative. The paraphyses of these Florida specimens are up to 200 μ long.

From the same locality and on the same host plant, Mr. Speare has forwarded specimens of *Aschersonia basicystis*, the flattened-pulvinate, white form with scattered pycnidia. The extruded spores on these examples form isolated heaps, often cylindrical, up to 0·25 mm. high. The spores measure $14\text{--}17 \times 2\text{--}2\cdot5$ μ , and are oval with tapering ends.

Professor Thaxter's collection from Chili includes two examples of *Sphærostilbe flammea* Tul., from Concepcion, November, 1905, and from Corral, December, 1905, respectively. In the height of the conidial stage, these match *Microcera pluriseptata* Cke. & Massee. The ascospores measure $15-22 \times 6-8 \mu$, and, in general, are more strongly verrucose than in any other examples seen.

When the account of the *Nectriæ* parasitic on scale insects was published, no examples of *Lisea Parlatorix* Zimm. had been seen by the writer. This species recently occurred (September-December, 1921) in fair quantity on a species of *Chionaspis* on *Gardenia florida* L. in the Royal Botanic Gardens, Peradeniya. The perithecia are densely clustered on a thin, byssoid, purple-brown stroma, which is sometimes whitish at the margin; they are subconoid, up to 0.25 mm. high, 0.3 mm. diameter, obtuse at the apex, ostiolum not elevated, purple-brown becoming almost black, rough with large, close-set warts composed of cells up to 16μ diameter. The perithecial wall is thick, violet by transmitted light, of large cells, with a few, stout, violet hyphæ, 4μ diameter, at the base. The developing perithecia have hyphæ in the form of branched moniliform chains at their base. The asci are cylindrico-clavate, scarcely pedicellate, eight-spored, with spores obliquely uniseriate or irregularly arranged, $80 \times 8 \mu$; no paraphyses. The ascospores are oval or narrow-oval, hyaline, one-septate, not constricted, rounded at the ends, $9-13 \times 4-6 \mu$.

The conidial stage forms white tufts at the margin of the scale. These are loosely built, and consist of rather rigid, branching, hyaline conidiophores, up to 0.4 mm. high, 4μ diameter, fasciculate below, diverging, repeatedly branched, the ultimate branches solitary, often unilateral, or in whorls of two or three, attenuated outwards, one-septate. The tufts show a purple tinge at the base. The conidia are narrow-cymbiform or fusoid, usually straight, sometimes slightly curved, three-septate, $18-40 \times 3-5 \mu$, or four- to five-septate, slightly falcate at one end, $46-64 \times 3-4 \mu$. When old or weathered, the conidiophores collapse into a confused tangle which becomes purple.

NOTES.

The Bird Chilli.—The common Nayi-miris (*Capsicum minimum* Roxb.) is known as the Bird Chilli. On January 20, 1918, I observed three or four crows (*Corone macrorhyncha*) round some low bushes of this plant, busily engaged in devouring the green, unripe fruits. They seized the fruit with their beaks, and with a vigorous tug broke it off just above the level of the calyx.—T.P.

Desmodium tortuosum DC.—This species occurs as an occasional weed in the neighbourhood of Kandy, and is not uncommon in flower beds in the Royal Botanic Gardens, Peradeniya. There is a specimen in the Peradeniya Herbarium labelled “*Desmodium* sp., R. Bot. Garden, 1860,” by Thwaites, and another, similarly labelled by Thwaites, with the addition in the same handwriting, “from Mauritius, H. de Alwis.” This additional note would seem to indicate that the supposed origin of the plant was a gardens’ tradition, which was not supported by any documentary evidence. The plant is not mentioned by Trimen in the Flora of Ceylon, nor in his *Hortus Zeylanicus*.

Specimens of the form which occurs as a weed have been identified at Kew. The plant was introduced *via* the United States Department of Agriculture in 1896 as a fodder plant, and in 1897 was said to have grown fairly well in all the Gardens. But it was not taken up by the public generally, and there is no specimen in the herbarium to show what form was then introduced.

In the Ceylon weed the flowers in bud are green with purple wings and become purple on expansion. About mid-day they “explode,” and the exploded flower becomes pale blue.—T.P.

Weeds.—*Apium Ammi* (Jacq.) Urb. occurred as a weed on waste ground at Haputale in November, 1917. *Cordia Aubletii* A. DC. is now a weed round the hotel at Anuradhapura; it was introduced into Ceylon from British Guiana in

1888, and was probably transferred from Peradeniya with other plants to the old Experimental Garden at Anuradhapura, which is now the hotel grounds. *Plantago pumila* Willd. appeared in abundance in beds of Cummin grown from imported Indian seed on the Experiment Station, Gangaruwa, in 1917. *Senebiera didyma* Pers. was common as a roadside weed along the Ramboda road, Nuwara Eliya, in September, 1918, particularly round stone heaps; there is a specimen in the Peradeniya Herbarium from the Herbaceous Garden, Peradeniya, 1894.—T.P.

Ceylon Syrup of Squills.—In Grimm's *Laboratorium Ceylonicum*, that author included *Scilla* among the Ceylon medicinal plants, and stated "Componuntur ex ea Acetum and Oximel Scilliticum." The probable explanation of this reference is to be found in Thunberg's *Travels*, Vol. 4, p. 150 (English edition), where the latter author, in writing of Samarang, states: "The *Crinum latifolium*, which may be used instead of the *Scilla* or Squills, grows here, near Batavia, and in other parts."—T.P.

Vernacular Names for Plants.—Mr. C. Driberg informs me that the Shoe-flower (*Hibiscus rosa-sinensis* L.) is known as Wada in the Southern Province (Matara District). That name was recorded, in the form Waddaghas, by Hermann (*Musæum Zeylanicum*, pp. 29, 61). The name by which it is usually known is Sapathu mal, which is evidently derived from the Portuguese Fulo de Sapatta, also recorded by Hermann, who stated that it obtained that name from the fact that the juice of the flowers was used for blacking shoes (*quod succo florum coria tinguntur*.)

Mr. Driberg also found that at Tissa the Lettuce Tree (*Pisonia alba*) was known as Ketta, and points out that the latter name is, perhaps, a corruption of the Tamil Leechhai Kedda.

Tephrosia Hookeriana W. & A. has been sent in from the Galle District under the name of Ela-pila. Pila is a generic name for *Tephrosia*, but the name Ela-pila was not recorded by Moon, Thwaites, or Trimen.

"Alavanga pillu" has been identified at Kew as *Erigeron sumatrensis* Retz. It no doubt obtains its local name from its erect, simple stem. The first specimen placed in the Peradeniya Herbarium was collected in November, 1898.

The weed which has achieved notoriety as the Kurunegala Daisy is *Tridax procumbens* L.

Specimens of *Tabærnamontana coronaria* Br. have been received from the Southern Province under the name Wata Suda. This confirms the Sinhalese name given for this species by Moon.

The common paddy field weed, *Fimbristylis miliacea* Vahl, has been sent in from the Southern Province as Kudu Matta. This name had not been recorded previously. The Sinhalese name which has previously been known for this plant is Mudu-halpan.

Acanthospermum humile DC. was first recorded for Ceylon from the Colombo District in 1916. Mr. F. Lewis has recently (August, 1921), collected it in the Puttalam District, where it is known as Katu-nerenchi, from its resemblance to *Tribulus terrestris*.—T.P.

The Water Hyacinth (*Eichhornia crassipes*).—The native names which have been given to this plant in Ceylon are of interest from several view points.

In the Tangalla District it was known in 1914 as Japan Yabara, apparently under the impression that it came from Japan. That was not very wide of the mark, the plant having been introduced from Hong Kong. Yabara is possibly the same as Yapura, recorded by Clough (p. 379) as a medicinal plant not identified. Hermann (Mus. Zeyl., p. 24), recorded Sabara for a plant which Linnaeus identified as *Monochoria hastæfolia*, Diya-habarala, and Yapara appears in a list of Ceylon medicinal seeds sent to Leyden in 1785. It would appear that Yabara, Yapura, Sabara are variants of the Habara in Diya-habarala.

In the Kadugannawa District the Water Hyacinth was known in 1916 as Diya-kehel, *i.e.*, the water plantain. The name may have been suggested by the inflated leaf bases.

The only previous record of the name was made by Moon, and he included it in his list of varieties of the plantain, but it is most probable that he was guessing from the name, and had not seen a specimen. This name does not appear to be in use at the present day, but one may hazard the suggestion that it probably referred originally to *Jussiaea repens*, whose spongy floats resemble peeled plantains.

In 1917 the name Diya-manel was supplied for the Water Hyacinth in the Eadella District. The idea underlying this name is fairly obvious. Manel is the Water Lily, *Nymphaea stellata* Willd. Goda-manel is *Crinum asiaticum* L., or the Lily which grows on land (goda = land). Diya-manel (Diya = water) is consequently a water lily, though in this case the Diya would seem to be tautological. But it is of interest to note that the same name was given to Thwaites in a neighbouring district for a plant which proved to be an introduced species, *Hymenocallis tenuiflora* Herb.

In the Kandy District there is a belief that the Water Hyacinth is a native medicinal plant, known as Diya-beraliya, and the idea is as difficult to eradicate as the plant itself. The name Diya-beraliya was not met with by Thwaites or Trimen, but it was recorded by Hermann, whose specimens were *Monochoria hastæfolia* Presl., i.e., Diya-habarala. The name does not appear to have been used with any definiteness at any time, and specimens of Diya-beraliya sent in recently from the Southern Province proved to be a *Commelina*. The basis of reasoning on which this name is applied to a water plant is not evident. Beraliya is *Doona cordifolia* Thw., and has been applied to *Doona oblonga* Thw. Pini-beraliya is *Doona ovalifolia* Thw. Kotikan-beraliya is *Doona nervosa* Thw. Honda-beraliya is *Doona macrophylla* Thw. Rat-beraliya is *Hopea jucunda* Thw. Thus, these other species of "Beraliya" are Dipterocarps, and it is difficult to see any resemblance between them and *Monochoria*.

The Water Hyacinth seeds freely in Ceylon, and it is proving difficult to eradicate where it has been allowed to flower, because of the delayed germination of the seeds.

On May 30, 1916, seeds from the same capsule were divided into two lots, one of which was placed in water and the other on mud in glass dishes exposed to the light in the Laboratory at Peradeniya, in a room in which the temperature varies from 71 to 81° F. The seeds sink in water. On September 2, 1916, half of those in water were transferred to a similar dish of water, which was subsequently kept in darkness. A thick film of algæ developed over the surface of the mud, and the seeds in that dish were lost sight of. This set was discarded in December, 1918, by which time none of the seeds had germinated.

A thin tough film of algæ similarly grew over the bottom of the dish which contained the seeds exposed to light, and covered the seeds. This film was removed periodically. No alga film developed in the dish kept in the dark.

In December, 1918, the dish exposed to light was accidentally moved to a position in which direct sunlight fell on it in the early morning, and the seeds were left dry for one or two days. Water was again added, and in the course of a week the seeds germinated (December 30, 1918). Half of the seeds kept in water in darkness were then dried off, and after two days were again immersed in water. None of these seeds, however, have germinated up to date (March 4, 1920).

The Water Hyacinth was introduced into Ceylon as an ornamental plant. In that respect, however, though undoubtedly handsome, it has the defect that the inflorescence is of short duration. On the second morning, the stalk bends over and either the whole or part of the flowers are plunged beneath the surface of the water. This usually occurs, at Peradeniya, by 8.30 A.M.

In addition to the recorded methods of propagation, viz., by seeds and by offsetts, a third has been observed at Peradeniya. When a plant is old and the lower part is a mass of decayed leaf-bases, the terminal bud develops rootlets, separates from the plant, and floats off to begin an independent existence.—T.P.

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